

Support in setting up a non-grid Atlas Tier 3

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Philosophy behind our assembly sequence for non-grid Tier 3's

- Instructions are broken up into sequences that should take no longer than 1-2 hours
- Testing is performed after each assembly sequence to ensure things are correct before proceeding
- Check lists will be written.
- Interactive cluster is setup and tested before the Batch cluster
- Xrootd storage tested before Grid storage

Assembly sequence

- Initial steps prior to setup/installation
 - Collect the required public network addresses
 - Determine the private network names
- Hardware preparation
 - On machines with RAID card, configure storage at BIOS level
 - Prepare kick start files for OS installation

Head node installation

- Head node installation via kick start
- Private network configuration
- Virtual machine installation for Puppet Master
- VM installation for LDAP server
- Configuration of following services on head node
 - Dnsmasq (provides dns services to machines on private network)
 - firewall (for public interface)
 - Add local user accounts
 - NFSV4 mounts for configuration files and AtlaslocalRootBase
 - Ganglia Client
 - Squid Proxy cache
 - Condor software
 - Creation of atlasadmin account in LDAP
- Test Head node configuration

NFS node setup

- Kick start file installation of OS configuration of disks
- Private network configuration (including NAT) and testing
- Installation of local accounts
- Creation of NFS V4 exported file systems
- Installation of Ganglia server and web server
- Installation LDAP client authentication
- Firewall configuration
- Installation/Configuration of Condor config files

Interactive node (installation)

- Node installation via kickstart file
- Private network configuration
- Local accounts
- Addition of extra libraries need for Atlas software
- Installation of manageTier3SW by atlasadmin account on NFS mounted disks
- Installation of CernVM-FS for Atlas software and conditions DB
- Simple Atlas Test analysis jobs (to be written)

Batch Node installation


- Installation via kickstart files initially
- Static IP address on Private network
- Condor software installation and configuration
- Installation of required additional libraries for Atlas software
- CernVM-FS installation/configuration
- Condor system testing

Xrootd storage system

- Xrootd storage system is installed on head node and batch nodes using managedT3SW and the VDT configuration scripts
- Test xrootd system with simple copies and read back
- Simple condor jobs processing data stored within Xrootd system.

Where to find details

- Tier 3 configuration wiki currently at ANL
<https://atlaswww.hep.anl.gov/twiki/bin/view/UsAtlasTier3/Tier3gSetupGuide>



The screenshot shows a web browser window with the URL <http://atlaswww.hep.anl.gov/asc/>. The page features a header with the ANL ASC logo and the Argonne National Laboratory logo. A red arrow points to the 'Tier3 Setup and Related' link in the left-hand navigation menu. The main content area includes a section titled 'Our mission' with a sub-section 'ATLAS detector' and a list of services offered for ATLAS users.

ANL ASC
ATLAS analysis support center at ANL

Argonne
NATIONAL LABORATORY

Our mission

ATLAS detector

Our mission is to support **ATLAS** physics analyses, in particular for ATLAS physicists at US mid-west Institutes. We are one of the three **Analysis Support Centers** in the US.

We offer for ATLAS users:

- A model Tier-3 (T3g) for ATLAS analysis
- Meeting and office space for visitors
- A dedicated video conference facility
- Computer accounts (**Gateway Policies**)
- ATLAS software expertise and consultation
- T3g setup expertise and consultation
- Analysis expertise and consultation

The ANL ASC is operated by **the ANL ATLAS group**.

Navigation menu:

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- Tier3 Setup and Related**
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- While at ANL ASC
- Calendar
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Latest news:

Oct 4, 2009:
US ATLAS Tier-3 Meeting (Oct. 29-30, 2009)

[Information »](#)

US Atlas Tier 3 support

- 0.5 FTE support from US Atlas funds (some support from NFS – MRI for the next year)
- Rely heavily on community support across the Atlas Collaboration

Atlas wide support mailing list:

atlas-adc-tier3-managers@cern.ch

All Tier 3 site admin's are strongly encouraged to join.
This is how we can make community support work.

- Usage examples will be put into the Atlas Analysis work book and in the Atlas Tier 3 wiki

Ultimate location for instructions – Atlas Tier 3 wiki
:

<https://twiki.cern.ch/twiki/bin/view/Atlas/AtlasTier3>

Conclusions

- Instructions for setup non-grid Tier 3 are taking shape
- Will rely on community support to augment the 0.5 FTE of paid support for Tier 3's within US Atlas
- Your help is greatly appreciated and welcomed