

OSG Tier 3 support

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ATLAS Tier 3 meeting – ANL 8-9 June 2010

Open Science Grid

- Main software integrator for the middleware used in US-ATLAS
 - Packaging (in collaboration with VDT)
 - Configuration
 - Documentation
 - Testing
 - Integration
- Operation (security, grid, ...)
- Community development
- Support

Software release cycle

- Feature request
- Development and packaging (VDT)
 - Initial testing (mainly automated, regression testing, ...)
- Validation on VTB (Validation TestBed)
 - Feature verification, evaluation “on the field”
- Integration test on ITB (Integration TestBed)
 - Tested with all the middleware and VO software
- Documentation (in parallel)
- Release

Documentation

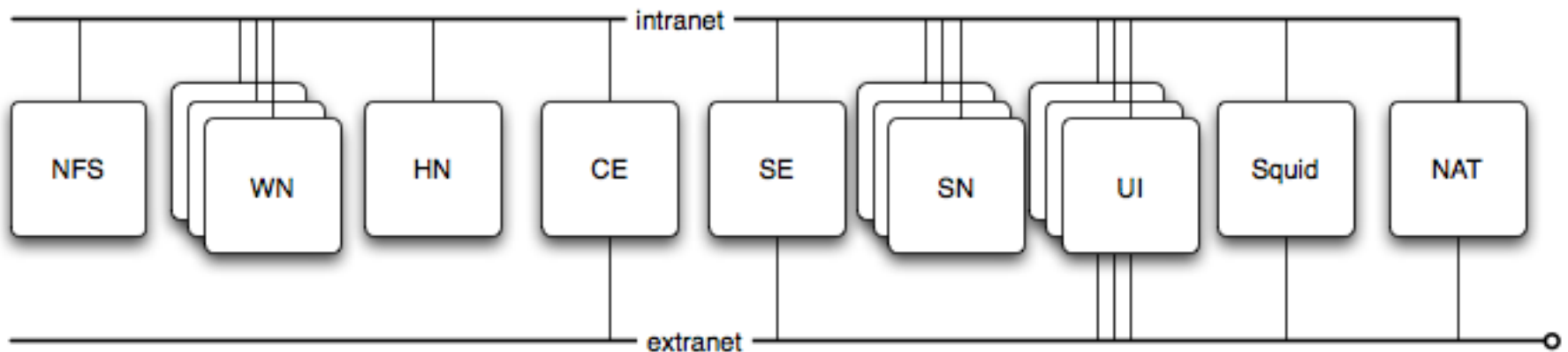
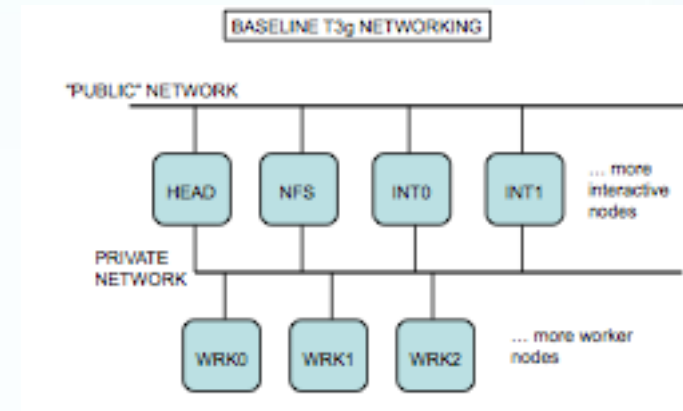
- New document validation
 - owner, tester, reviewer
 - Formal review process
 - E.g. <https://twiki.grid.iu.edu/bin/view/Tier3/ClusterTimeSetup>
- Reference documentation
 - Complete documentation for end-users, administrators, developers
- Tier 3 documentation
- Support for ATLAS Tier 3 documentation

Tier 3 documentation

- <https://twiki.grid.iu.edu/bin/view/Tier3/WebHome>
- Documents useful for a small OSG Site or cluster (Tier 3)
 - Description and planning
 - Description, installation and configuration of modules ()
 - Examples: full installation of a Tier 3
- First attempt for OSG to provide a full documentation almost from the hardware to a working site
- Limited vertical solution
- Part of the OSG wiki (TWiki), main OSG documentation:
 - <https://twiki.grid.iu.edu/bin/view/Main/WebHome>
 - <https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/WebHome>

Tier 3 Test cluster

- Virtual Tier 3 cluster
 - Testing functionality, no performance evaluation
 - Flexible
 - Set of nodes allocated to test different functionalities
 - A firewall, a set of SL 5 VMs, single and dual homed

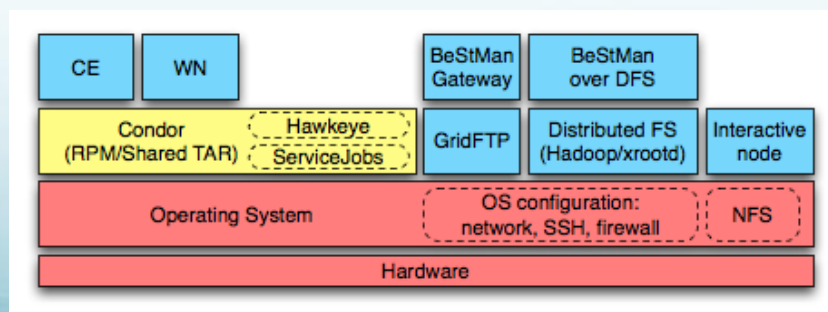


Xrootd example

- Distributed file system used mainly by ATLAS. Packaged by VDT.
 - <https://twiki.grid.iu.edu/bin/view/Tier3/XrootdInstall>
- New requirement raised by ATLAS
 - Non root installation and operation
 - Integration in ATLASLocalRootBase (manage multiple version)
 - Simple configuration: automatic, single configuration file, multiple disks, ACLs
 - Firewall compliance
 - Support multi homed hosts (clusters with both private and public networks)
- Xrootd developers with OSG liaison produced a new version
- Rounds of testing, verification and changes
- Initial release in ATLAS managed framework
- Several people involved: software developer, OSG (storage, integration, Tier 3 support), ATLAS (Tier 3, Xrootd TF, development)

Other software packages

- WLCG-Client
 - Grid client tested and compatible with ATLAS software (ROOT, Athena)
 - Integrated in ATLASLocalRootBase (versioning, immutable VDT caches)
- Grid middleware
 - Compute Element – remote job submission
 - Storage Element – efficient data movement
 - GridFTP
 - BeStMan



Operation

- Security advisories (see Mine's talk)
- Information system
 - LDAP, ClassAd using BDII, CEMon, ReSS
- Accounting
 - <http://gratia-osg-prod-reports.opensciencegrid.org:80/gratia-reporting/>
- OSG Information Management System
 - <https://oim.grid.iu.edu/oim/home>
- MyOSG – information portal
 - <http://myosg.grid.iu.edu/>
- OSG Maintenance Scheduling Tool
 - http://myosg.grid.iu.edu/rgdowntime/index?datasource=downtime&summary_attrs_showservice=on&summary_attrs_showrsvstatus=on&summary_attrs_showfqdn=on&gip_status_attrs_showtestresults=on&downtime_attrs_showpast=&account_type=cumulative_hours&ce_account_type=gip_vo&se_account_type=vo_transfer_volume&start_type=7daysago&start_date=12%2F25%2F2009&end_type=now&end_date=12%2F25%2F2009&all_resources=on&gridtype=on&gridtype_1=on&service_central_value=0&service_hidden_value=0&active_value=1&disable_value=1

The OSG community

- HEP experiments, astrophysics, chemistry, biology and others
- Distributed production
 - Tier 1 and Tier 2 in ATLAS
 - Production meetings
- Site administrators workshops
- Grid schools (end users)
- Mailing lists

Support

- First line of support locally and from ATLAS
- Mailing lists
 - http://www.opensciencegrid.org/Consortium_Mailing_List
 - osg-sites, osg-int
- Grid Operation Center
 - Phone +1 317-278-9699
 - Email goc@opensciencegrid.org
 - Ticket <http://www.grid.iu.edu/cgi-bin/contact.pl>
- Campfire (Tue, Wed, Fri, 11:30am-3pm central)
 - <https://twiki.grid.iu.edu/bin/view/SiteCoordination/ChatCalendar>
 - <http://integrationcloud.campfirenow.com/6e62e>
- Links
 - <https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/InstallHelpProcedure>

Summary

- Follow ATLAS and local recommendations
- Follow security guidelines (local, ATLAS, 4 suggestions in Mine's talk)
- Subscribe to osg-sites
- Use Campfire and other support resources (tickes, osg-int)
- Use OSG documentation as additional source of information (reference, education)