

Réunion des sites LCG-France - CC-IN2P3

23 novembre 2010

Sabine Crépe-Renaudin for the ATLAS French Squad team

- ATLAS grid support organisation
 - General ATLAS organisation
 - French ATLAS organisation
 - What is the Squad team role?
 - The French cloud Squad
- Recent activities
 - Software release area
 - Pledge, spacetoken management and dark data
 - Analysis and production balance
 - Last week situation
 - Site survey report



ATLAS Distributed Computing Organisation



ADC Central Operations Team

- A group of experts of various components of ADC
- ADC Expert On-Call (from the operations team)
 - Main responsible for the intervention
 - Interface between shifters and the experts

ADC Shifts

- Watch the monitors (and do some instructed intervention)
- report to the expert
- notify the sites (ggus) and the cloud squad (email, savannah)

Cloud Squad

- Treat cloud issues and ATLAS-specific issues at the sites
- Interface between the sites and the central operations

Sites

- Treat site issues, may consult cloud squad for ATLAS-specific issues

ATLAS Distributed Computing Shift Teams



T0, ADC@Point-1: Shifts on Atlas Distributed Computing at Point-1

- T0
- Data export from T0
- Data distribution (T1-T1)
- Central Services (DDM)

ADCoS: Shifts on Atlas Distributed Computing

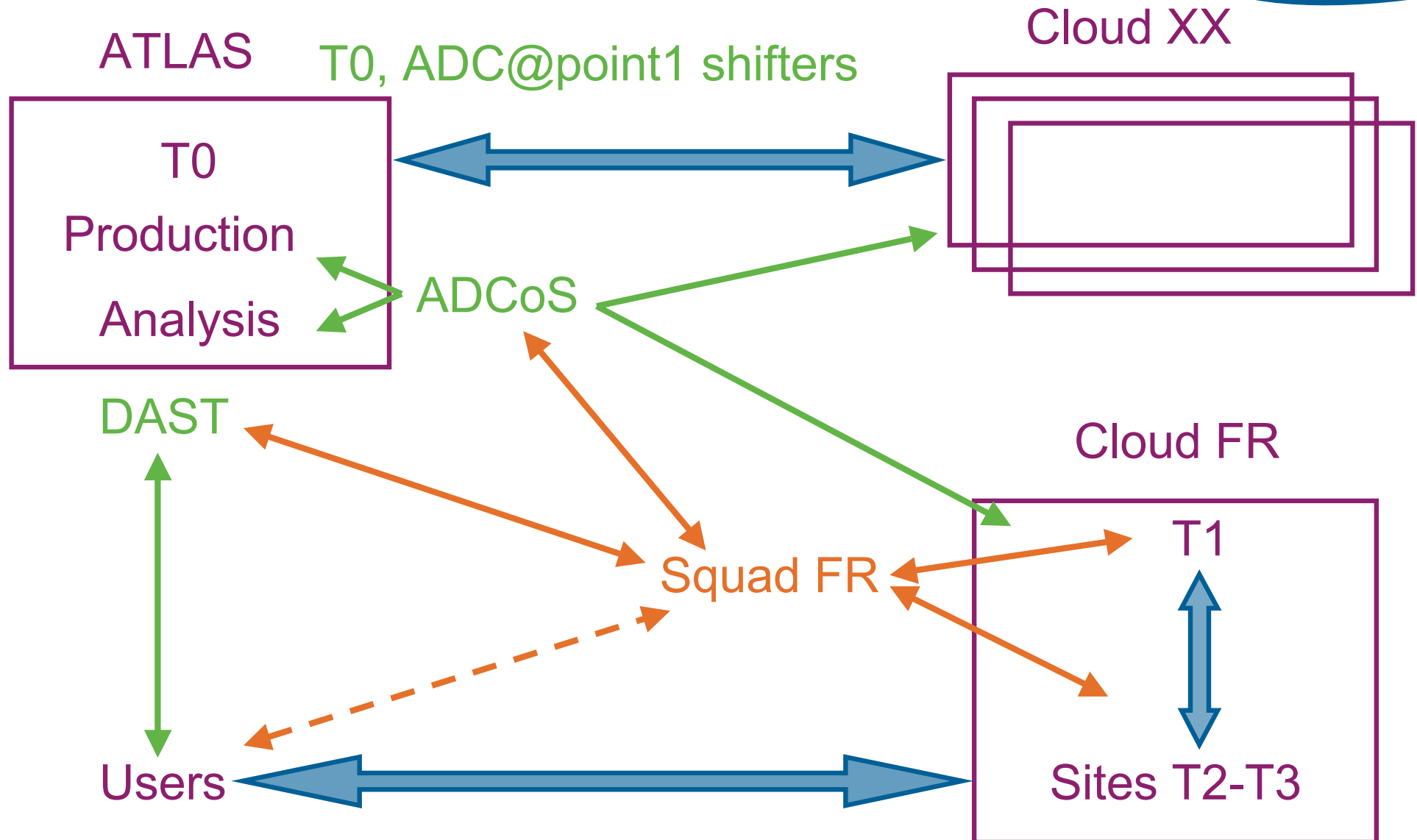
- Official production (MC, Reprocessing)
- Real and MC data distribution (T1-T1, T1-T2)
- Central Services (DDM, ProdSys)

DAST: Shifts on Distributed Analysis

- User Analysis on GRID
- User Data Access, User Data Replication

Cloud Squads (2010)

ATLAS Grid Support Organisation



ATLAS France

- CAF
 - One representative per laboratory
 - CC ATLAS team
 - Catherine Biscarat
 - Éric Cogneras
 - Ghita Rahal
 - Squad-FR
 - Squad member could be also CAF representative for his lab
- Common meetings : CAF meeting
- \approx 1 meeting by month at CC
 - Point on cloud activities
 - Part of the meeting with CC team for T1
 - Discussions related to any French ATLAS computing

Squad role (I)

There is one Squad per cloud

Squad team is the main interface between ATLAS and the sites of one cloud

- Squad team ensures that all cloud sites functioning is optimal
- has a closer look than AdCoS to sites of their cloud
 - Look at ATLAS monitoring (panda, DDM,sam tests, ...)
 - works to minimize offline or blacklist periods
 - Prepares for sites schedule downtime
 - Please inform us if you plan a downtime !
 - works to prevent problems
 - Disk space, software installation
 - Manage lost or corrupted files

Squad role (II)

- Squad team is the interface between ATLAS and sites
 - Passes questions/problems/informations from sites to ATLAS
 - Ex : overflow of ATLAS release areas
 - Answer questions from ATLAS (AdCoS, DAST) linked to the cloud or its sites
- Squad team participates to the good operation of the cloud in close collaboration with ATLAS CC team
 - Manage the pilot factory
 - Look at FTS channels
- Squad team checks that there are ATLAS tasks for the cloud

From ATLAS to sites

- Main channels are via GGUS team tickets which can be posted by
 - ADCOS shift team
 - DDM team
 - DAST
 - Squad

From sites to ATLAS

- GGUS answers
- Squad mail

From Squad to sites

- GGUS in case of problem
- ATLAS-LCG-OP-L@in2p3.fr for general information or questions
- Site admin mailing address for informal information, precisions, ...

French Squad



How to contact us ?

atlas-support-cloud-fr@cern.ch

The team

- Emmanuel Le Guirriec (CPPM)
- Irena Nikolic (LPNHE)
- Luc Poggioli (LAL)
- Wenjing Wu (IHEP)
- Sabine Crépe-Renaudin (LPSC)
- ... new volunteer ?

+ bonus : Éric Lançon, Stéphane Jézéquel, Ikuo Ueda

Shifts

- In general for 1 week Monday-Sunday

Don't hesitate to contact us for any question, comment, suggestion or recrimination about ATLAS distributed computing operation ...

Latest activities



- Software release area
- Pledges deployment and spacetoken
- Analysis and production balance
- Last week situation
- Site Survey

Software release area (I)

- ATLAS ask for a 250 GB area (swareas) to install ATLAS software
- Currently around 20 releases installed
 - See https://atlas-install.roma1.infn.it/atlas_install/ and choose your site
 - Possibility to receive a mail for each release installation and its result => allow to detect problem

142	15.6.9.3.1-wzbenchmarks	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
143	15.6.9.4	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
144	15.6.9.6	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
145	15.6.9.7	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
146	15.6.9.8	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
147	15.6.9.8.1-btagging	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
148	15.6.9.8.2-btagging	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
149	15.6.9.9	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
150	15.8.0	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
151	15.8.0.1	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
152	15.8.0.2	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
153	15.9.0	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
154	15.9.0.1	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
155	15.9.0.2	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
156	15.9.0.3	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
157	15.9.0.4	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
158	15.9.0.5	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
103	16.0.0	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	removed
104	16.0.0.1	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	removed
105	16.0.0.2	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	removed
106	16.0.0.3	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	removed
159	16.0.1	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	installed
107	16.0.1.1	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	removed
108	16.0.1.2	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	removed
109	16.0.1.3	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	removed
2	16.0.1.4	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	failed
3	16.0.1.5	IN2P3-LPSC	i686_slc5_gcc43	lpsc-ce.in2p3.fr	failed

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- Currently around 20 releases installed
 - See https://atlas-install.roma1.infn.it/atlas_install/ and choose your site
 - Possibility to receive a mail for each release installation and its result => allow to detect problem
- Current size around 300 GB > 250 GB
- For sites which have set a hard size limit this causes bad software installation (condition database), failure of production
 - => site is set offline for production by ATLAS
 - => Work to track the problem, manually delete releases, verify installation, tests site ... waste of time and CPU

Software release area (II)

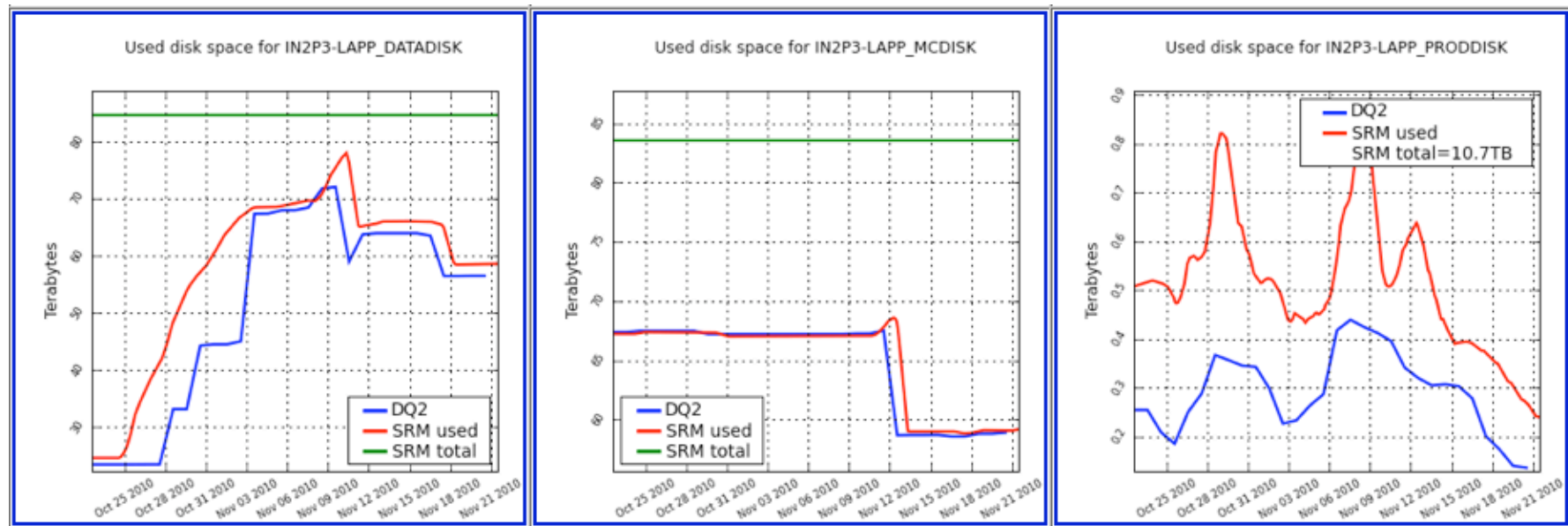
- Squad contacted ATLAS software responsible and problem has been presented to ICB (impact users, physics group) on 5th of November
- Decision has been made to discard releases, physics groups contacted to choose the obsolete ones
 - On 17th of November, first batch of releases to be removed have been defined and will be automatically discarded; they represent \approx 110 GB
 - Second batch representing around 90 GB will be discarded beginning of December
- Work is ongoing to reduce the releases and DBreleases size and use
- Future solution : dynamic software loading/unloading via Cernvmfs

Space token

Space token

- Managed by ATLAS centrally : DATADISK, MCDISK, HOTDISK, SCRATCHDISK
- Managed by ATLAS groups : GROUPDISK
- Managed by site : LOCALGROUPDISK

→ http://bourricot.cern.ch/dq2/accounting/cloud_view/FRANCESITES/30/



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→ http://bourricot.cern.ch/dq2/accounting/cloud_view/FRANCESITES/30/

When spacetoken fill up, an alert is sent to the squad

- For ATLAS managed space :
 - Squad checks pledge have been deployed
 - Squad contacts ATLAS to solve the problem
 - Squad cleans dark data if needed
- For Site managed space
 - Squad contacts the site

Different kind of ATLAS jobs :

- Production jobs via panda (role=production)
- Analysis jobs via panda (role=pilot)
- French analysis jobs via panda (role=pilotfr)
- Software installation (role=lcgadmin)

Jobs priority management :

! Number of analysis jobs have decreased because competition with production

Fare share in CPU should be :

- 1/2 production
- 1/2 analysis

ATLAS recommendation :

- To be implemented before end of year

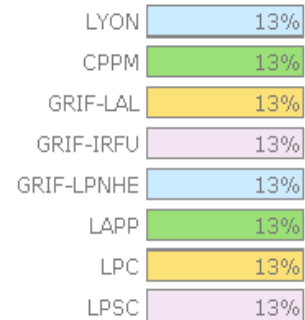
Tests will be done soon ...

Last week situation

- Data reprocessing started on October 30 @ T1s
- At CC, several problems (afs, vbox, BQS ...) implied a slow start of reprocessing
 - T1-T2 share updated at CC
 - CC T2 analysis and production activity reduced
- After one week, stage-in problems (dCache), situation became critical
 - All analysis tasks at Lyon are stopped
 - 12th of November, crisis meeting : decision taken to stop all DDM activity to Lyon (except export of reprocessing data); this implies :
 - No more production at sites
 - No possibility to users to transfer data to french sites
- First reprocessing phased achieved on 17th of November
- 19th of November evening, sites are “unblacklisted” progressively
- Backlogs in DDM to Lyon drained at 4 GB/s
- 20th : reprocessing last phase done, all sites (but CC T2) back in production
- Transfers to IN2P3-CC_DATADISK (official data) and IN2P3-CC_SCRATCHDISK (user data) and transfer of popular datasets are not resumed for the moment

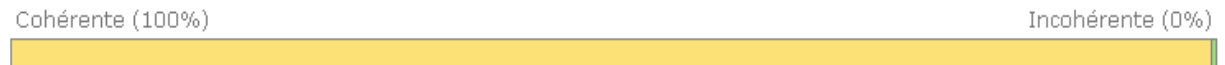
Site Survey (1)

* 1. Quel est votre site ? [?](#)

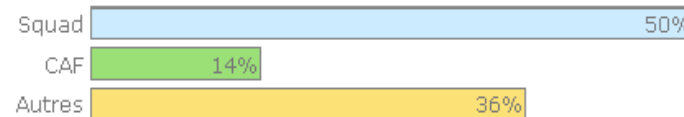


All sites answered
Thanks !

* 2. Demande de déploiement des ressources par ATLAS [?](#)



* 3. Interaction avec l'opération d'ATLAS [?](#)



* 4. Interaction avec les médecins [?](#)

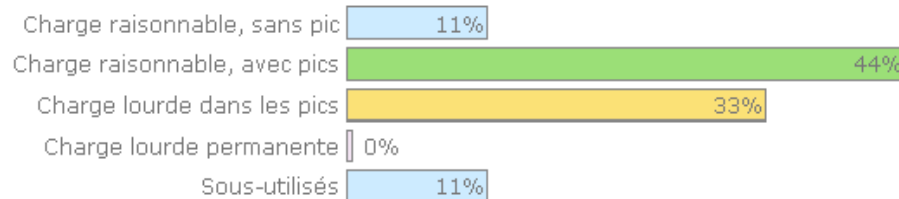


* 5. Contradictions entre besoins des médecins et politique affichée d'ATLAS ? [?](#)



Site Survey (2)

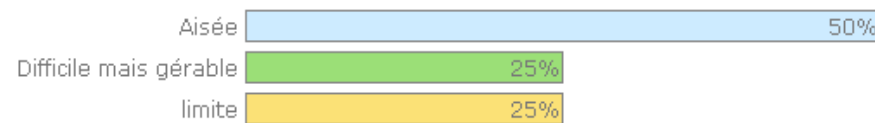
* 6. Utilisation des CPU ?



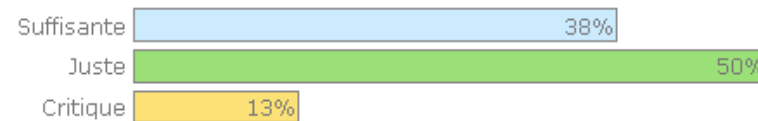
* 7. Gestion des espaces disque d'ATLAS ?



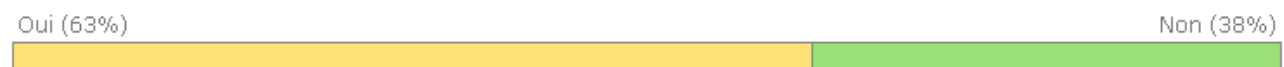
* 8. Problèmes de maintenance (releases, software, squid) ?



* 9. Offre de votre site en termes de support aux utilisateurs ?

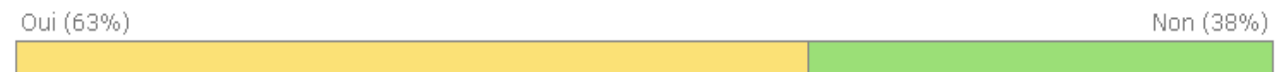


* 10. Avez-vous des questions d'utilisateurs spécifiques ATLAS ?



Site Survey (3)

* 10. Avez-vous des questions d'utilisateurs spécifiques ATLAS ? 



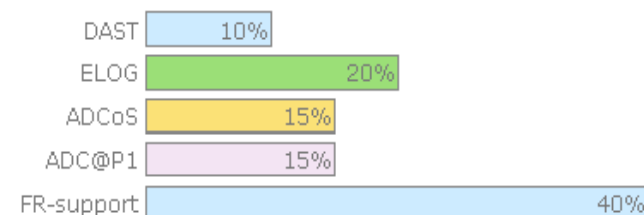
* 11. Comment jugez-vous la communication avec ATLAS ? 



* 12. Que faites-vous en cas de questions spécifiques ATLAS ? 

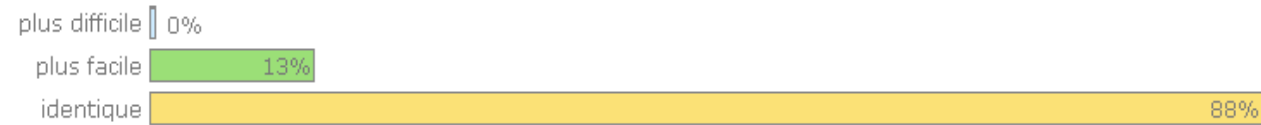
- ?
- je renvoie la question le support ATLAS du labo, sauf si elle concerne la grille dans ce cas je communique sur une des listes
- GGUS, CAF
- médecins locaux, puis Squad
- Nous essayons de diriger vers DAST ou vers une liste ATLAS
- Contact avec l'équipe du SQUAD
- google, ou mail, ou GGUS
- Redirection vers les gens du SQUAD

* 13. Connaissez-vous ces e-groups ? 



Site Survey (4)

* 14. Depuis l'arrivée des données, la situation est ?



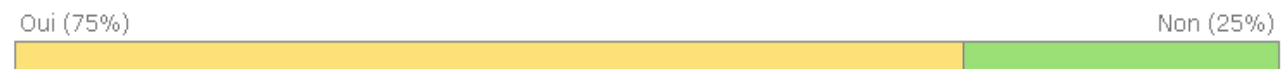
* 15. Observez-vous une différence depuis l'augmentation des jobs d'analyse (deb. juin) ?



* 16. Les jobs d'analyse posent-ils des problèmes spécifiques à votre site ?



* 17. Avez-vous des ressources pour l'analyse interactive locale ?



* 18. Combien de médecins locaux utilisent votre site ?

- 10
- ?
- environ 10
- 20
- Ne sait pas
- 2
- 23
- xx



Site Survey Summary



Concerning ATLAS central operation

- Good communication, resources deployment ok, tokens management ok, software maintenance ok
- Site interaction via Squad
- Support seems sufficient

Note

- Few interactions with physicists, local support can be a problem
- Some resources for interactive analysis
- Data arrival didn't have a large impact, still true now ?

Feedback ?

- Questions ?
- Suggestions ?
- Recriminations ?

... Thanks for your implication and fast answers !