

# ALIEN V2-19

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ALICE offline week

18-november-2010

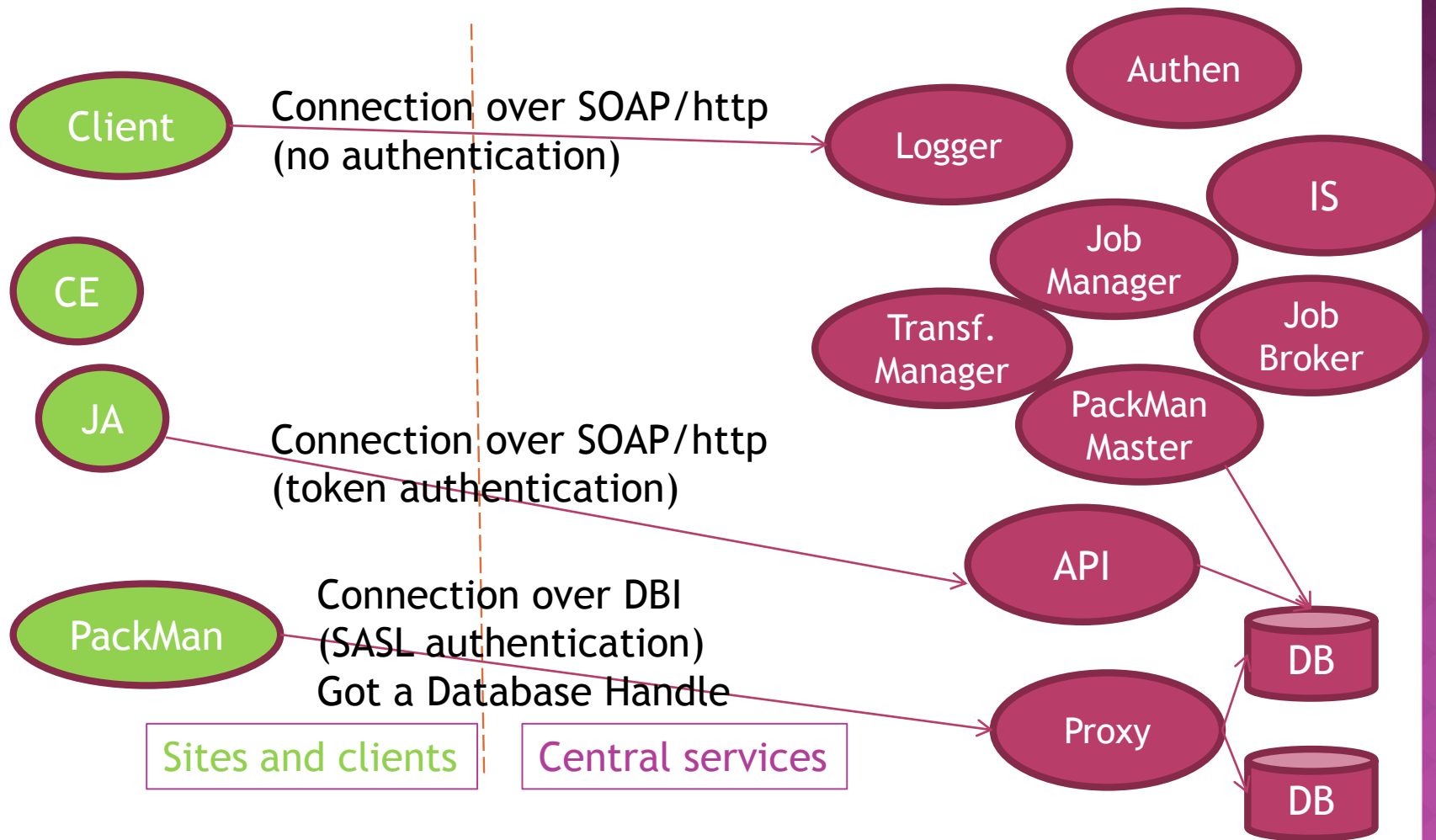
# TOPICS

- ◉ What's new in AliEn v2-19?
- ◉ When do we get it?
- ◉ What's after that?

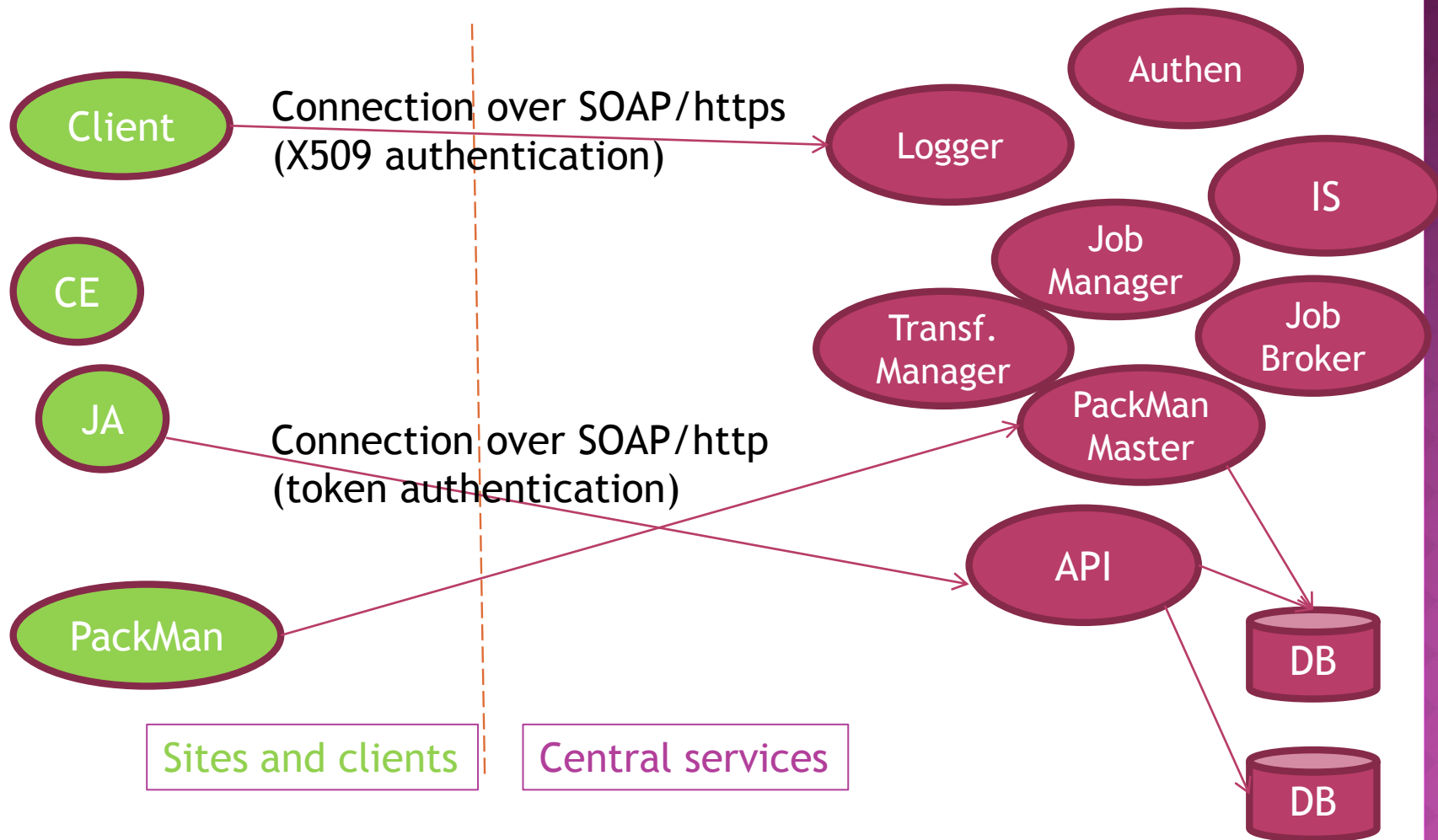
# NEW FEATURES

- ◉ Web services
  - Database connections limited to central services
- ◉ Security model
  - Envelope for file registration
  - X509 service authentication
- ◉ Physical file deletion
- ◉ Quotas, priorities
- ◉ UML diagrams
  - And improved documentations for developers
- ◉ Bug fixes and more

# ALIEN SERVICES IN V2-18



# ALIEN WEB SERVICES IN V2-19



# ALIEN WEB SERVICES

- No ProxyServer
- No SASL authentication
  - Clients connect using x509 (gridsite)
  - Servers connect to DB using DB authentication
- Clients do not get database handle
  - Use standard API to access database
- All communications are authenticated + authorized

# SECURITY MODEL

- Envelopes for file registration
  - Envelope created by Authen before talking to SE
  - Validated by the SE
  - Authen registers entries in the catalogue
- Services over https, using X509 proxy certificates
- Integrated with glexec

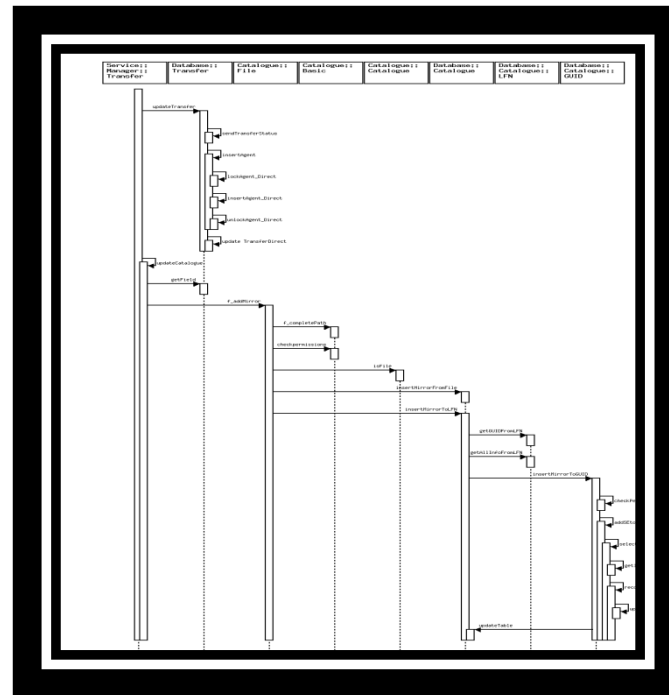
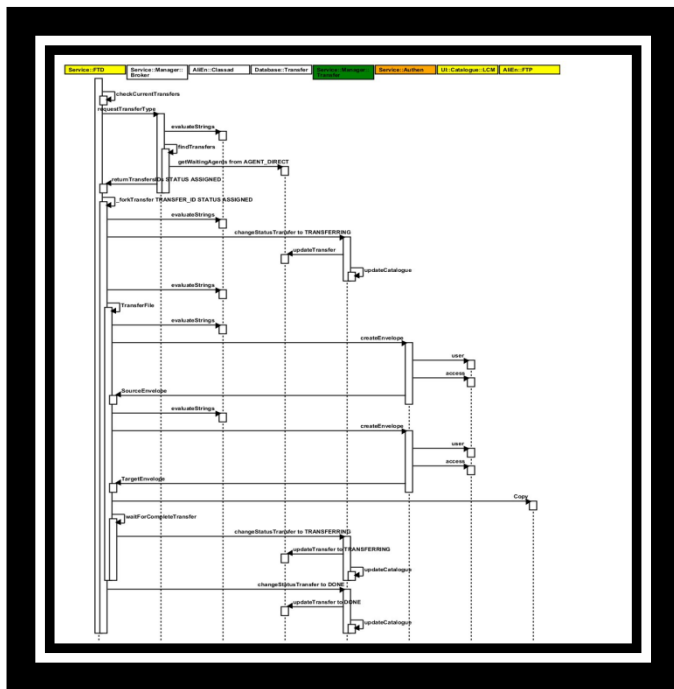
# PHYSICAL FILE DELETION

- Identification and removal of deleted files, or files never registered in the catalogue
- Done centrally, with security envelopes



# UML DIAGRAMS

- Explanation of Transfer and Job Model
  - All services and classes involved
- Ease learning curve for new developers



# OTHER IMPROVEMENTS

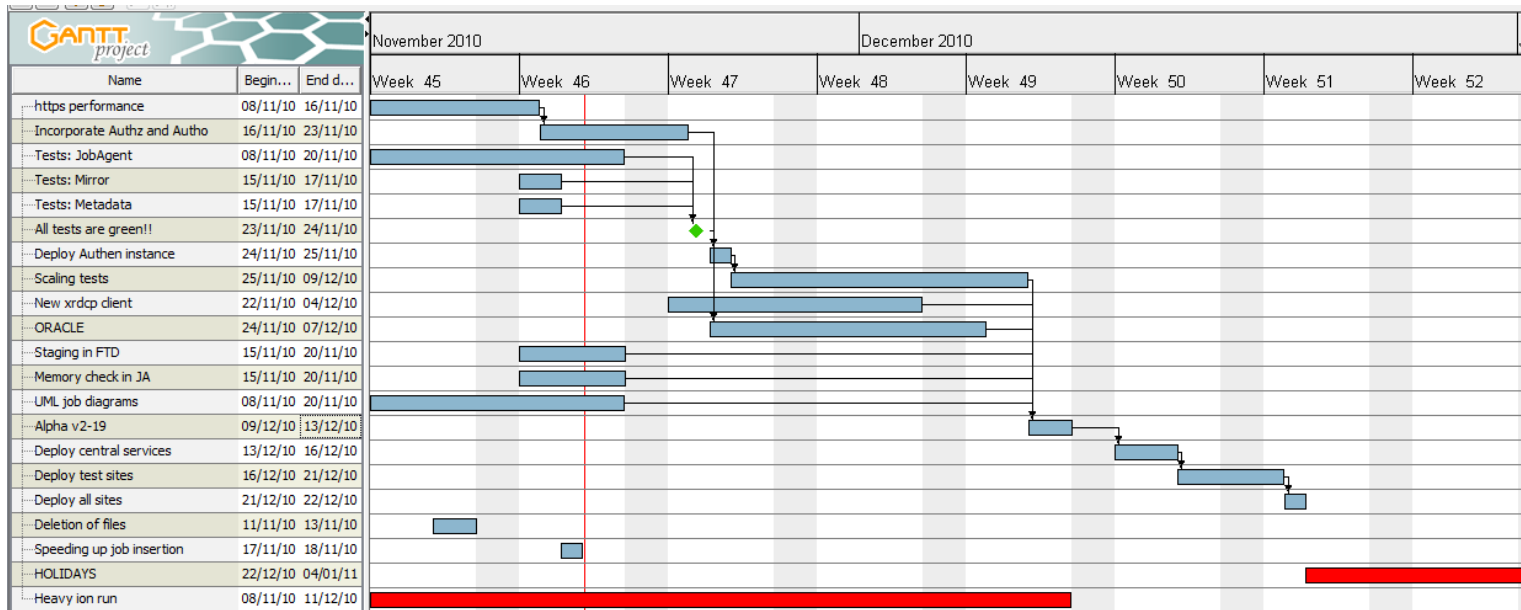
- ◉ ORACLE backend (at least the hooks...)
- ◉ Staged transfer states
- ◉ Job memory limit
- ◉ PackMan cache
- ◉ ...

# ALIEN V2-19

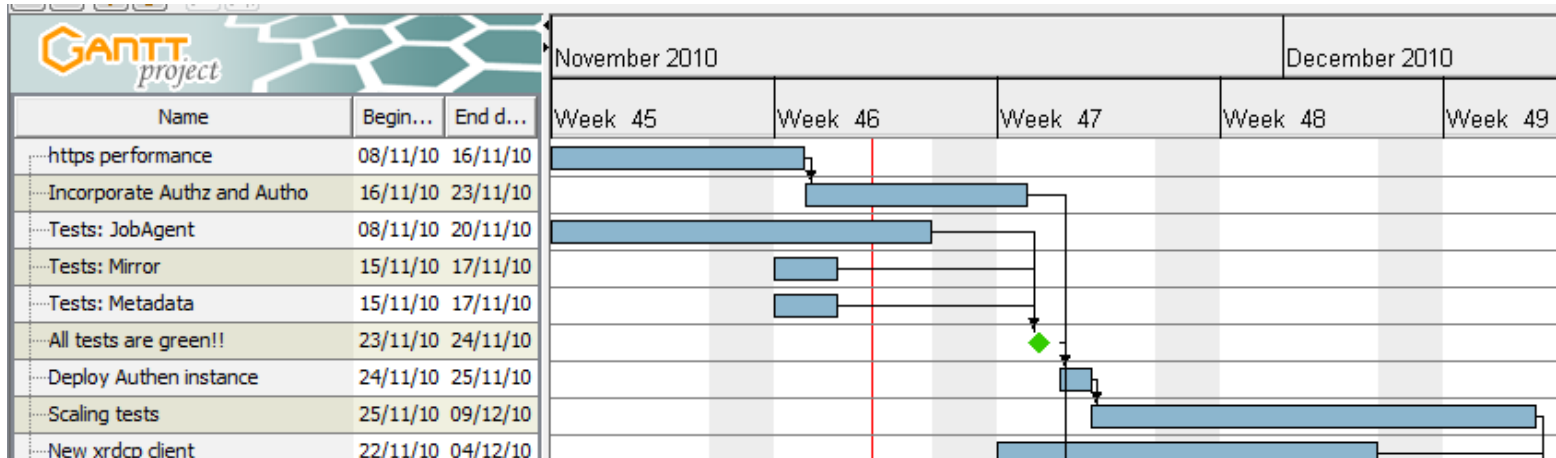
- ⊙ Contributions from lots of people
  - New record!
- ⊙ Backward compatible
  - New server can talk to new and old clients
  - And this was a mayor challenge...
    - Do we need it for future releases?
- ⊙ Some small changes for end users:
  - Remove /proc from catalogue
  - Perl client 'cp' logic modified

# PLANNING

- Two weeks to finalize
- Deployment before Christmas



# HAVE TO BE DONE

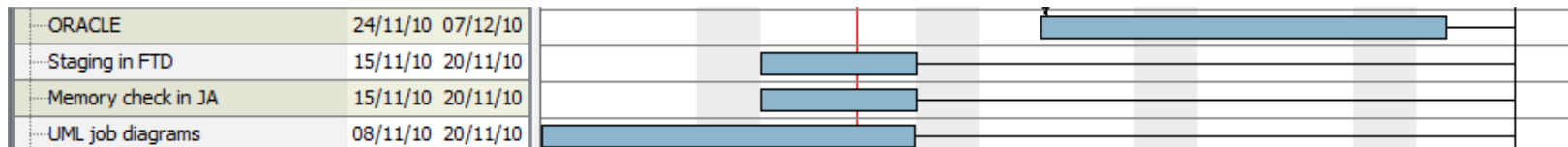
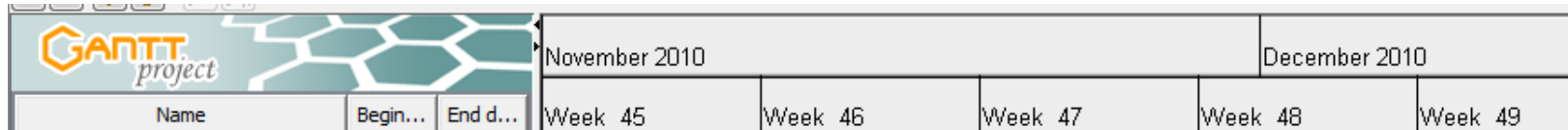


## ⦿ Milestone:

- All tests working by next week
  - See <http://alienbuild.cern.ch>

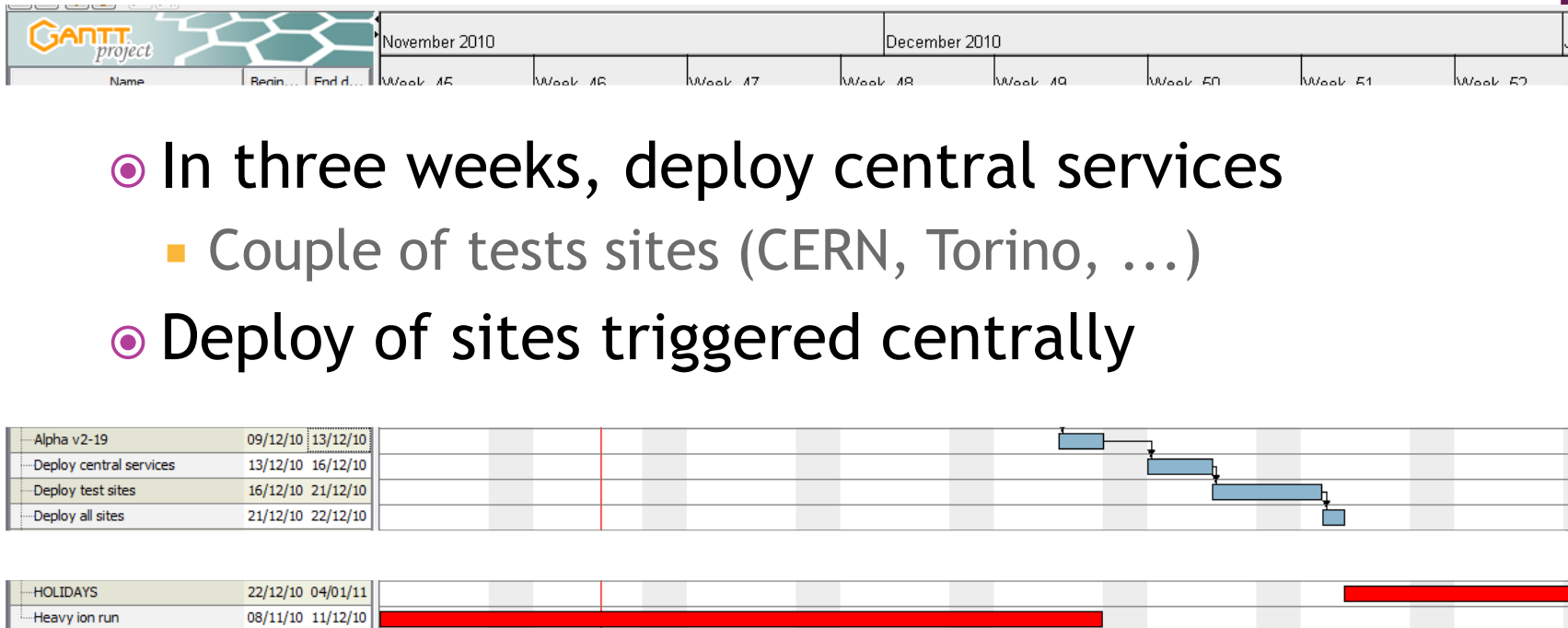
## ⦿ If not there, better to postpone

# WOULD BE NICE TO HAVE



- ⦿ If not there, they will become v2-19 patches

# DEPLOYMENT



- In three weeks, deploy central services
  - Couple of tests sites (CERN, Torino, ...)
- Deploy of sites triggered centrally

- With this type of updates...
  - Is backward compatibility really an issue?

# WHAT'S AFTER ALIEN V2-19

- ◉ Still minor patches to v2-19...
- ◉ Next version of AliEn:
  - AliEn v2-20, AliEn v3, AliEn 7, AliEns, IAliEn, MonAliEn
- ◉ Step back and get perspective...
  - Identify:
    - What are the weak points?
    - What has to be improved?
    - What can be improved?
  - Candidates:
    - PackMan
    - Authen, API servers
    - DB structure (Catalogue and TaskQueue)
    - Job vs. Transfer policy (send job to data??)
    - Combine AF and Grid



# CONCLUSION

- ◉ AliEn v2-19 getting finalized
- ◉ Web service paradigm
- ◉ Improved authentication and authorization
- ◉ Physical file deletion
- ◉ Very aggressive planning:
  - Deployment before Christmas!
- ◉ More info: <http://alien2.cern.ch>