dCache

Lessons learned from the POV of a developer

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How do we make projects succeed?

dCache as an example of federated development

- Medium sized software project providing a distributed storage system widely used in the CERN Worldwide LHC computing grid.
- Suboptimal project structure (IMO), but works because of good people.

dCache.org

- The informal organisation of the project
- Independent of external funding, no fixed lifetime, anybody can join.
- Effectively a Meritocracy.

The partners

- DESY, FNAL and NDGF
- Mistake: A development team is about the developers, not the organisations.
- Yet, for day to day development people are committed to the project full time.
- However, externally the organisation appears more closed than it has to be.

Dual stack developers

- Who am I? NDGF or dCache.org?
- Should not be a concern of other developers.
- Internal politics or hierarchy tend to spill into the project; introduces mistrust.
- Doesn't mean you shouldn't fund us.

Location

- Best option: All developers in one place.
- Next best: Scatter them as much as possible.
- Worst: A big location (DESY) and small satellites.

Decision making

- Location
- Meritocracy
- Accountability
- Organisation vs individuals
- Project manager (more like lead evangelist)

Lock-in

- Where is the project infrastructure?
  - At partner organisations?
  - At projects like GN3 or EMI?
  - In the cloud?
- Same applies to funding.
- Key is to avoid lock-in, to isolate the project from external forces.

Day to day operations

- Daily communication on Jabber, email, email lists
- Weekly all-hands video meetings
- Yearly physical all-hands meetings
- All minutes in wiki system - public
- Individuals visiting each other as often as possible

Infrastructure

- Peer reviewing of all changes (reviewboard)
- Ticket system for user support
- Shared public SVN (IMO should be git or Mercurial)
- Continous integration
- All is open to outsiders

Release process

- Time boxing
  - dCache.org cannot plan features to include
- Feature and patch releases
- Release manager
- Branching and prerelease testing
- Release notes and documentation

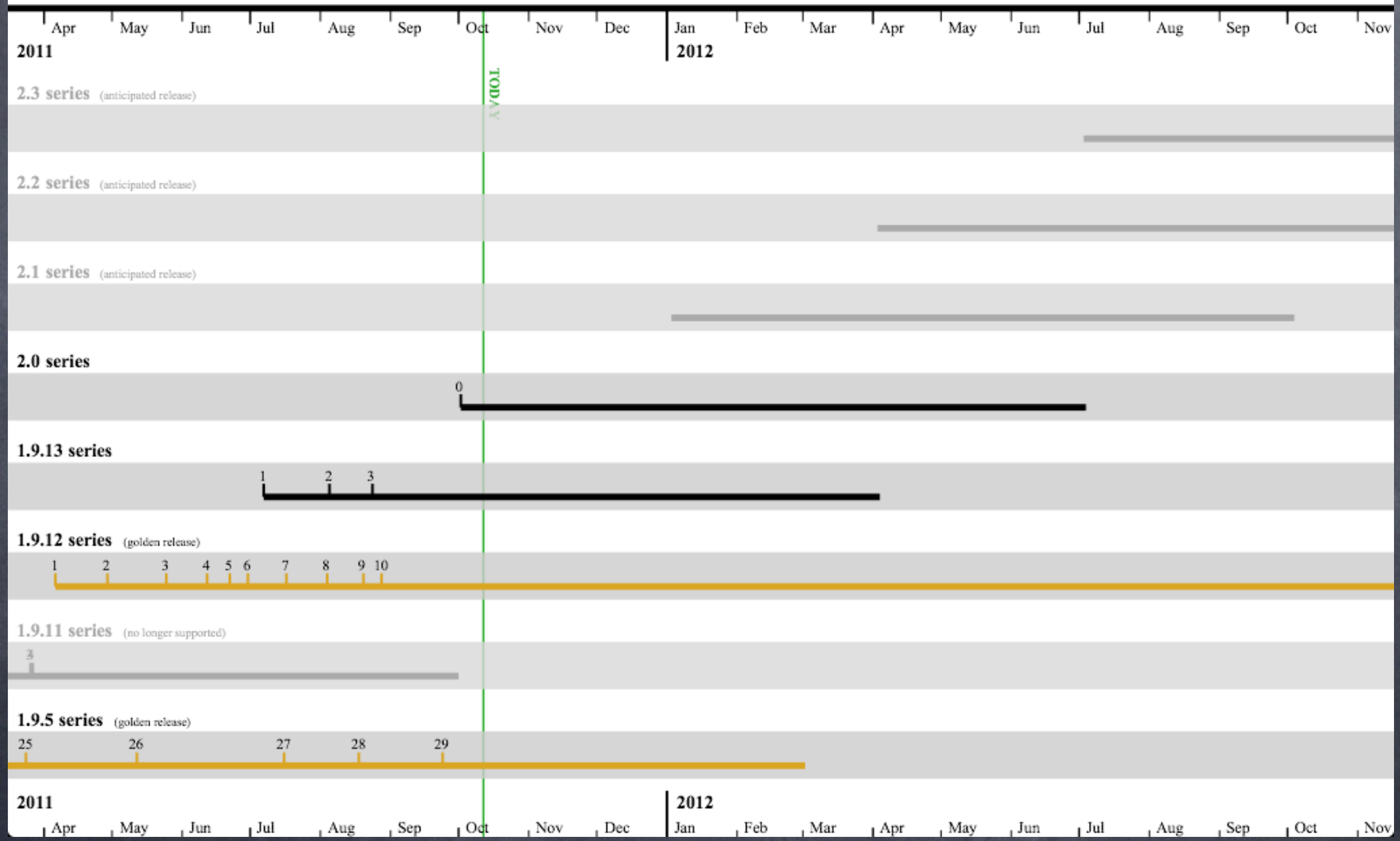
Uden navn

www.dcache.org/downloads/1.9/timeline-dCache.svg

Google

dCache server releases

... along with the series support durations.



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Summary

- It's all about levelling the playing field
- It's all about sustainability
- Doesn't mean you have to be disorganised or unfunded