



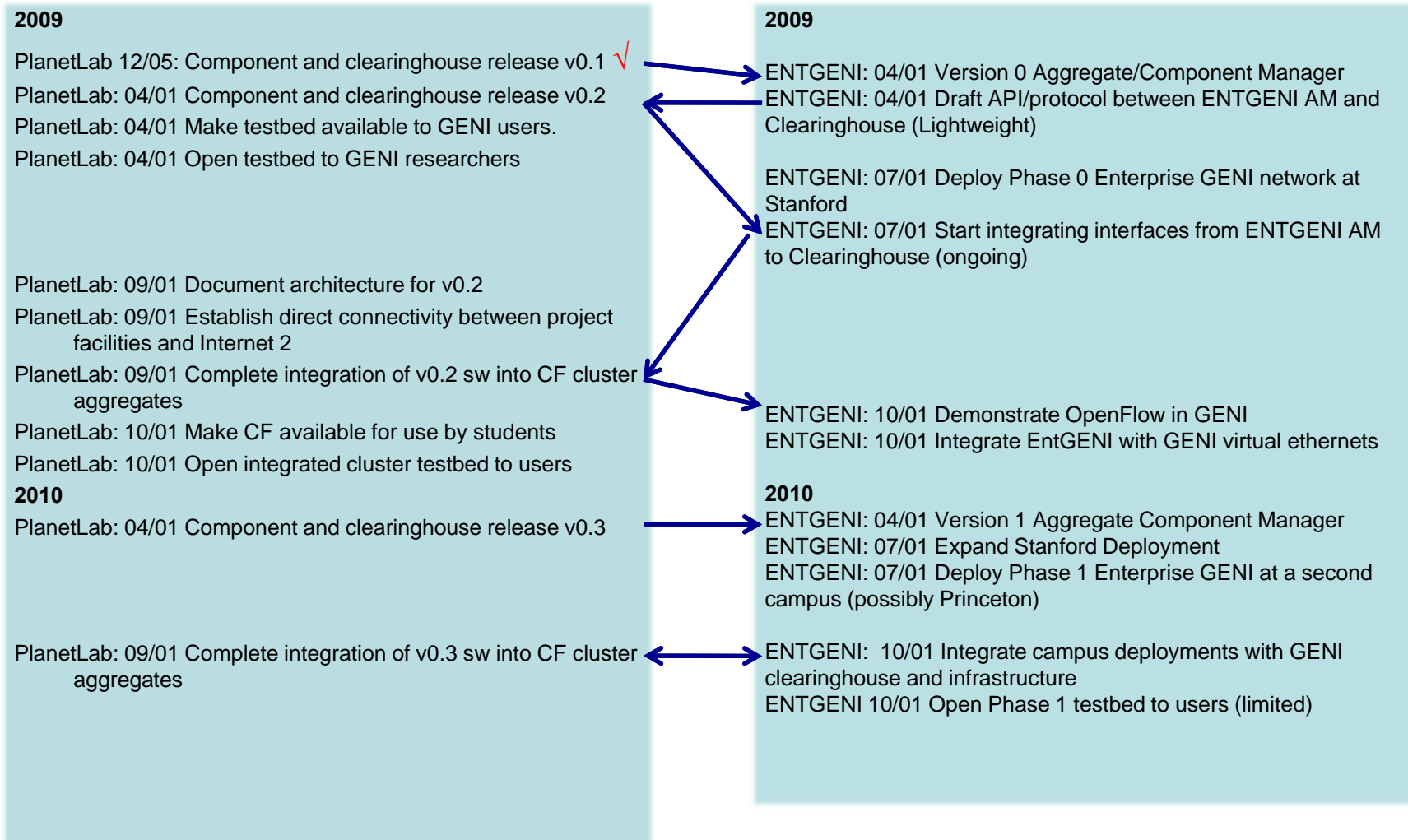
Spiral 1 Requirements

- Demonstrate GENI Clearinghouse & control framework in Spiral 1 projects as a central GENI concept.
- Demonstrate End-to-end slices across multiple technologies in Spiral 1 projects as a central GENI concept.
- Identify and exercise important interfaces between projects and between GENI components and existing networks.
- Support detailed integration of these interfaces with each project's technical staff.
- Feed prototyping and integration experience into Working Group deliverables, and vice versa.
- Support early experimental users of Spiral 1 prototypes as much as possible.
- Spiral 1 should be up and running April-October 2009 (ongoing).

Spiral 1 simultaneously moves ahead with demonstrations *and* with defining interfaces. Demonstration interfaces may be rough and may work for a single project, but interfaces (APIs/protocols) suitable for a wider community should result from integration as Spiral1 progresses.



Selected Milestones (PlanetLab and Enterprise GENI)





Spiral 1 Milestones (full text)

Year 1

- a) Implement Version 0 Aggregate Component manager for an OpenFlow network. (6 months)
- b) Deploy Phase 0 of Enterprise GENI comprising an OpenFlow network of few switches and wireless APs and a couple of computers in the Gates building of Stanford campus. (9 months)
- c) Start work with other parties to agree on the API/protocol between the GENI Clearing House and Aggregate Component Manager. (begin in 6 months and then ongoing)
- d) Start integrating interfaces to a GENI control framework clearinghouse in an aggregate component manager for an OpenFlow network. (begin in 9 months and then ongoing)
- e) Integrate Enterprise GENI Stanford deployment with the GENI Spiral 1 switched Ethernet VLAN infrastructure assuming tunneling to Internet2. (12 months)
- f) Host an OpenFlow workshop at Stanford to educate university researchers and CIO organization about the technology and how it can enable networking research on their campuses -- outreach activity. (9-12 months)
- g) Collaborate with GENI O&M and Security teams on enterprise network topics. This work will be part of working group participation. (on going)
- h) Demonstrate use of OpenFlow switches with a GENI clearinghouse in the Phase 0 deployment. Present demonstration at a GEC meeting -- outreach activity. (9-12 months)

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