

# CFWG meeting summary

- New working group chairs
  - Jeff Chase, Duke / ORCA
  - Rob Ricci, University of Utah / ProtoGENI

# Goal for Spiral 2: Define the aggregate API

- Requirements, function calls, resource representation
- Converge APIs of two of the control frameworks
  - PlanetLab and ProtoGENI both started with SFA
  - Reconcile naming, credentials, host and network RSpecs
  - Output: API with matching implementations
- Define missing elements needed for more general (next-gen) API
  - Framework for policies, scheduling, more general resource representation
  - Output: API

# Current approaches to resource representation

- Rob Ricci (Utah/ProtoGENI)
- Three approaches, which differ greatly
  - Ontology (ORBIT, ORCA):
  - Extensible data structure (ProtoGENI)
  - “To each his own” (PlanetLab)
- Are these approaches compatible? Can we converge on a single model? Should we?
- How do these models fit into a larger resource discovery story?

# Thoughts on control frameworks

- Guido Appenzeller (Stanford/OpenFlow)
- Thought #1: different resource types require different control frameworks, different UI
- Thought #2: should centralize and federate at the top level, between control frameworks
- Thought #3: use technologies that are prevalent elsewhere

# Next-generation need for scheduling, stitching, resource representation

- Jeff Chase (Duke/ORCA)
- Federation is likely to be tough
- Weak federation is easy to implement, hard to use. How much can we gloss over that's going to be hard later?
- Clearinghouse model ill defined; policy; time; fairness; who can reason about topology; how will we represent complex substrates?

# Next-generation need for identity and authentication services

- Steve Schwab (SPARTA/Security)
- Slices are now principals, too; what does this mean for future GENI security?
- What hasn't surfaced yet that will bite us later?

# Panel

- No agreement on minimalist vs. extensible control framework
- Can a single CF control heterogeneous resources? Is there either a simple generalization?
- Does a sufficiently rich language solve the problem?
- What does Expedia model tell us? Anything?
- As an experimenter, is there anything shared across CFs?
- Do users of experimenters need to be GENI principals?
- Should we keep centralized registration (ProtoGENI) or delegate (e.g. to InCommon)?
- John W. points out that we're going over old ground

# Wrap-up and next steps

- Need to identify most important points we brought up, and dribble them out on the mailing list to get conversations started.
  - We should enumerate things we agree on
  - John W.'s minimalism argument
  - Maybe we should model all resources as hotel rooms?
  - We need to agree on a common vocabulary
  - There were provocative and hard questions in the slides