Meet the GENI Working Groups

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http://www.geni.net/wg

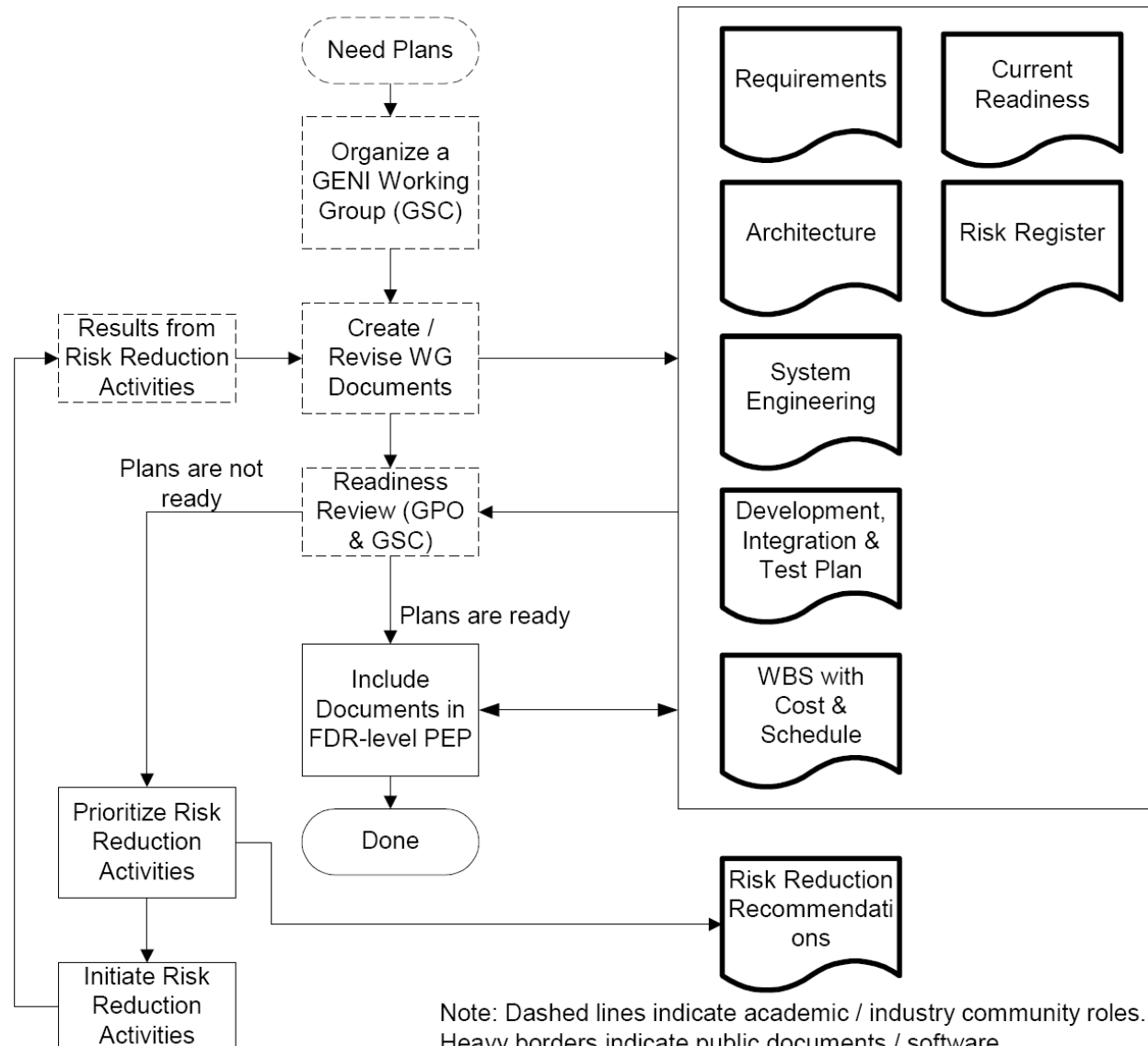- The following is a snapshot of a work in progress…

What do working groups do?

- Elaborate the GENI design
  - Define framework, tradeoffs
- Identify implied, derived requirements
- Highlight areas that are hard, ill-defined, need more thought
- Develop consensus on approach

Note: Dashed lines indicate academic / industry community roles.
Heavy borders indicate public documents / software.

Concept of Organization

- Working groups are the locus of GENI technical work

- GENI-funded prototyping & design work informs the WG; WGs inform GPO about risk; GPO funds prototypes to further design and reduce risk

- Decisions are made by rough consensus, reviewed by GPO

- WG process is open and transparent: public mail archives & meeting minutes

Concept of Organization (2)

- Small design teams are permitted, output to be reviewed by WG-as-a-whole

- GENI Engineering Architect (GEA) provides oversight

- GPO will provide document publication

Working Group Operations

- Discussion primarily via email

- Face-to-face meetings & report-out at GENI Engineering Conferences (3x/yr)

- Technical Coordination Group for synchronizing WG activities
  - WG chairs & system engineers, engineering architect, key GPO staff

- IPR policy in development
  - E.g., statements in WGs considered to be public
  - More on IPR from Craig

WG Roles

- ## Chairs
  - Encourage and guide WG technical progress
  - Manage decision-making, draw out minority opinions, ensure openness & transparency
  - Drawn from community (in general), serve 1-2 year terms

- ## System Engineers
  - Primary GPO-WG link; guide WG agenda to support GPO needs
  - Manage requirements, generate program documentation, identify immature areas
  - Staffed by GPO

Where are we now?

- All groups are chartered
- All groups have chairs
- SEs for substrate-wg, narrow-waist-wg
  - Additional SEs expected to be hired in ~Feb 08
- 1st face-to-face meeting this week
- Mail lists have a 2-3 dozen subscribers

Working Group Charters

Substrate WG

Substrate WG

- Chairs: Joe Evans, Kristin Rauschenbach
  SE: John Jacob

- Scope:
  - *What technologies should be in GENI? How will they be used? What is the framework for evolution of substrate technologies?*

- Activities:
  - Substrate framework development
  - Candidate technology identification & tradeoffs
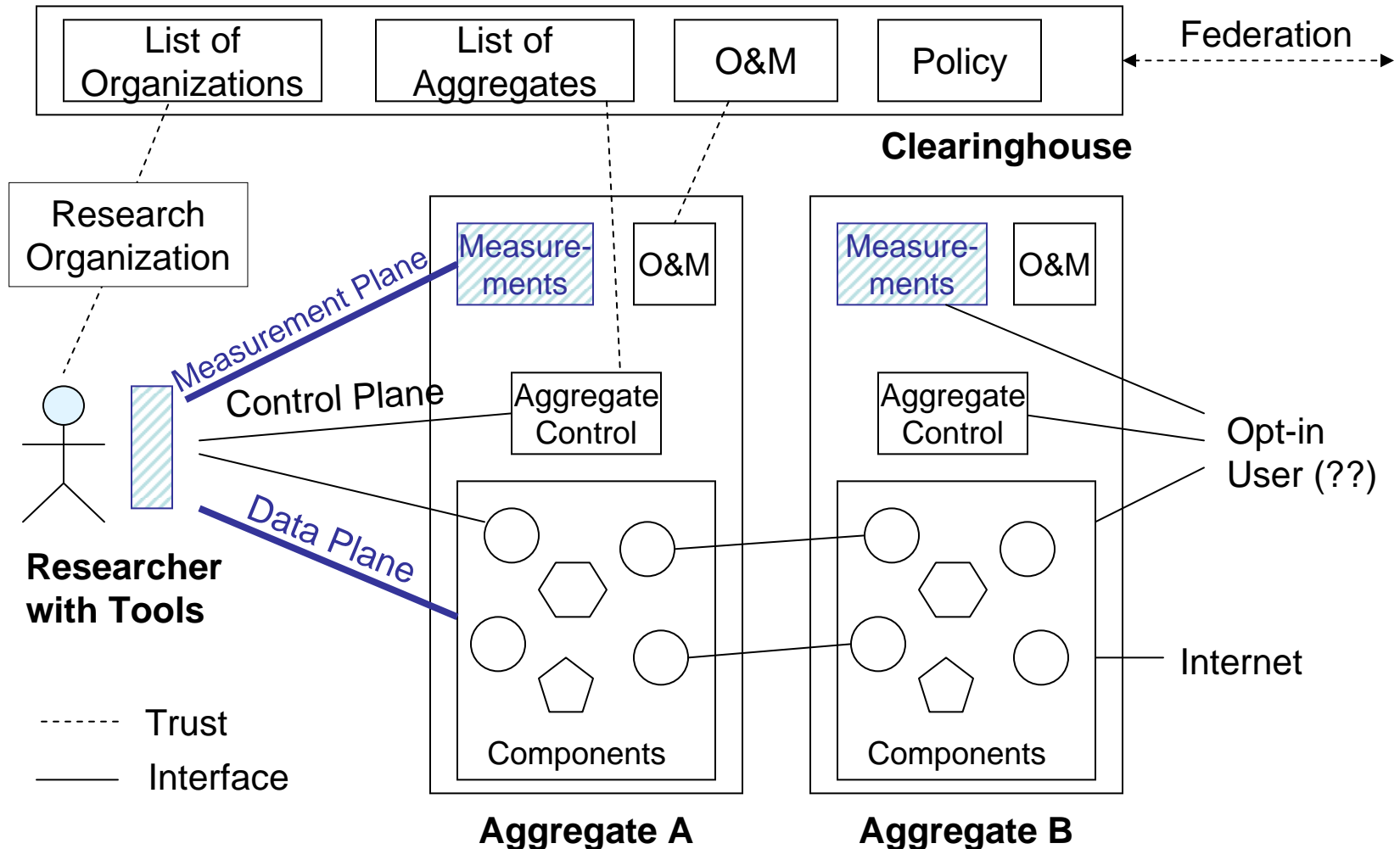 - Requirements definition
  - Substrate design
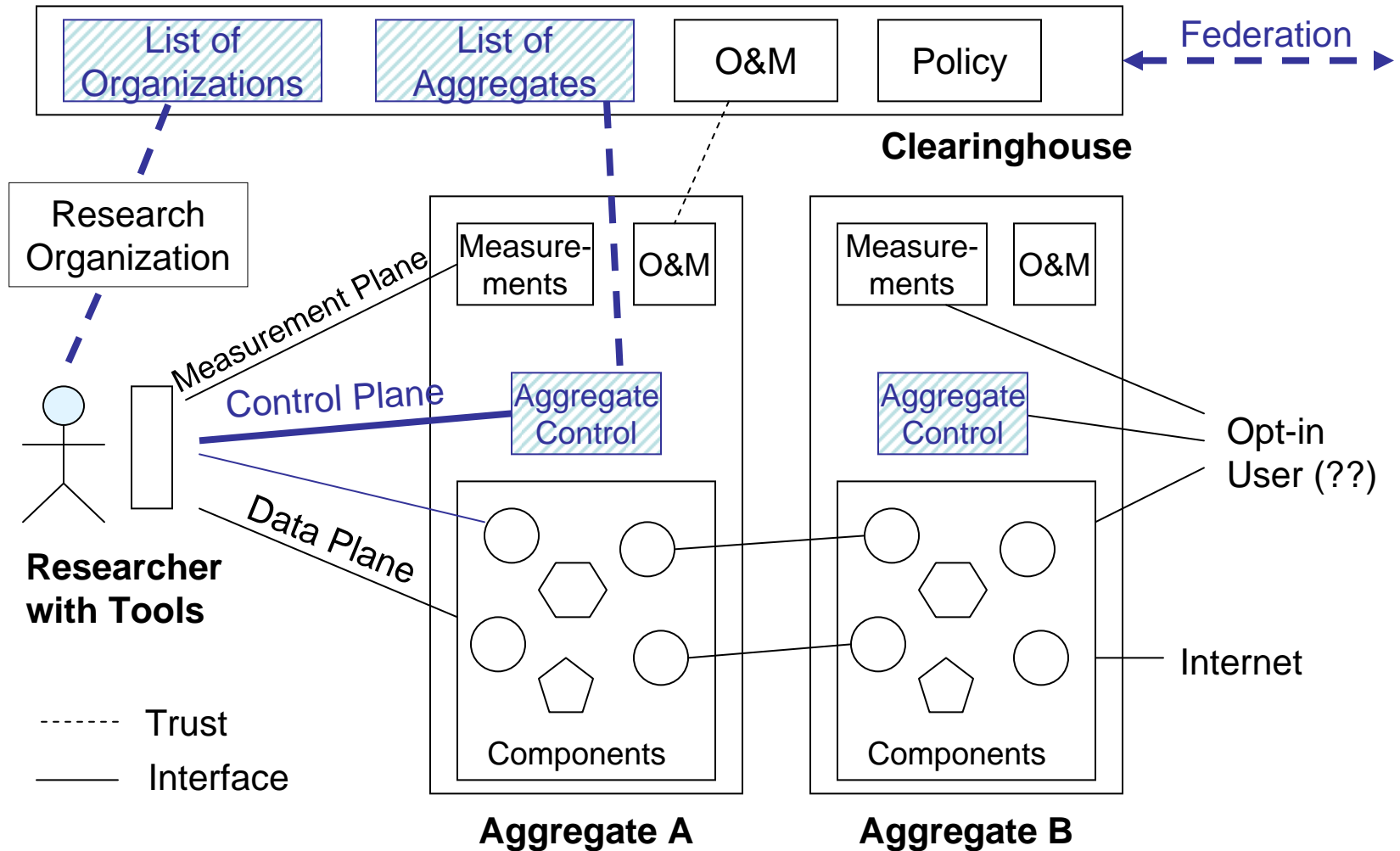
Narrow Waist WG

- Chairs: Larry Peterson, John Wroclawski
  SE: Aaron Falk

- Scope:
  - *What is universal across GENI components? How will evolution be accommodated with or without a full transition of all GENI nodes at once?*

- Activities:
  - Define major system functions and interfaces
  - Define resource description & discovery, addressing, naming, authorization approaches
 - Define federation strategies

Experimenter Workflow & Services WG

- Chair: Jay Lepreau, Jeff Chase
- Scope:
  - *What do experimenter-users need from GENI? Consider planning, scheduling, running, debugging, analyzing experiments; long running experiments & how they grow; archiving data.*
- Activities:
  - Develop sample workflows, use-cases
  - Define experimenter-support services
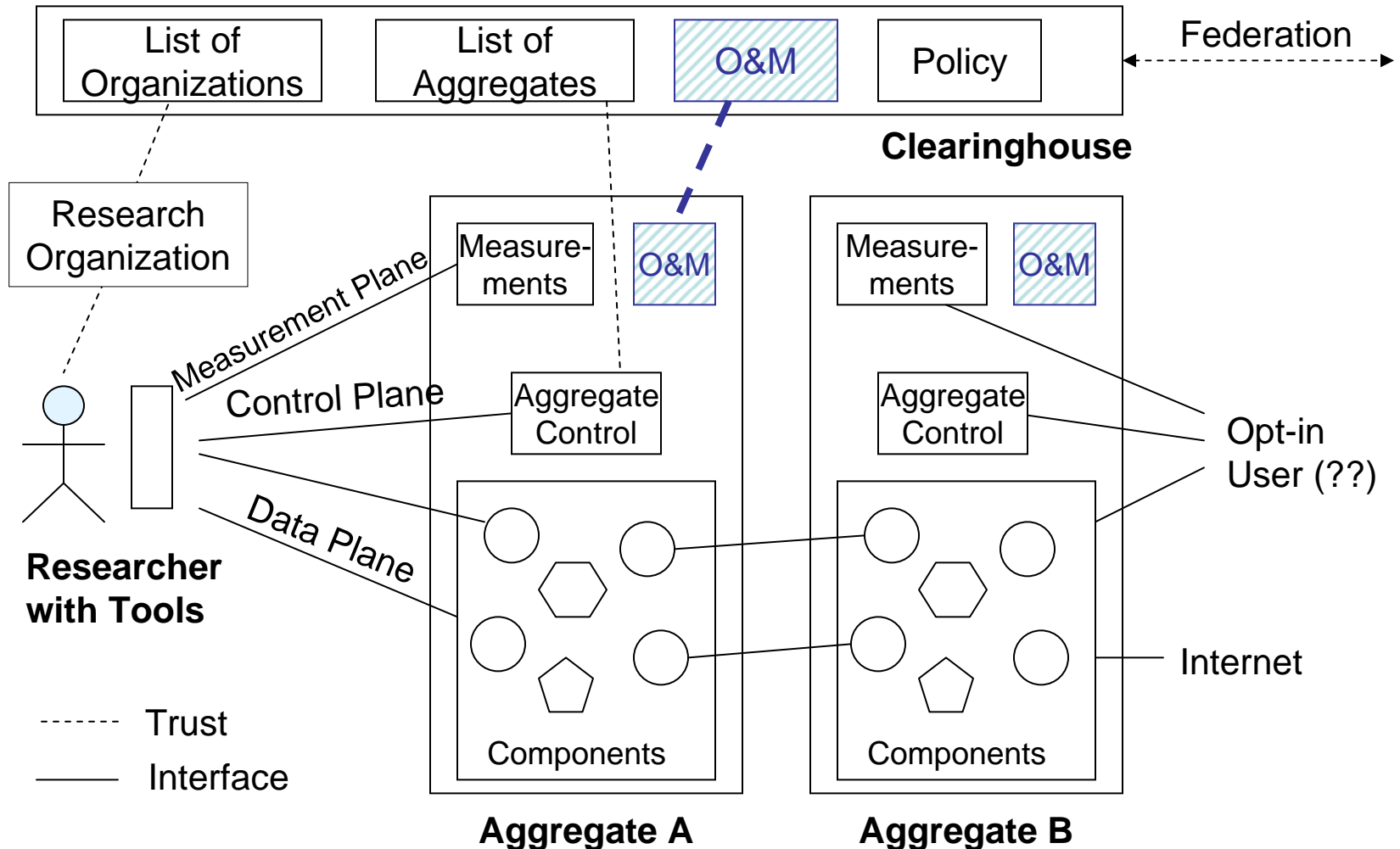 - Develop measurement strategies
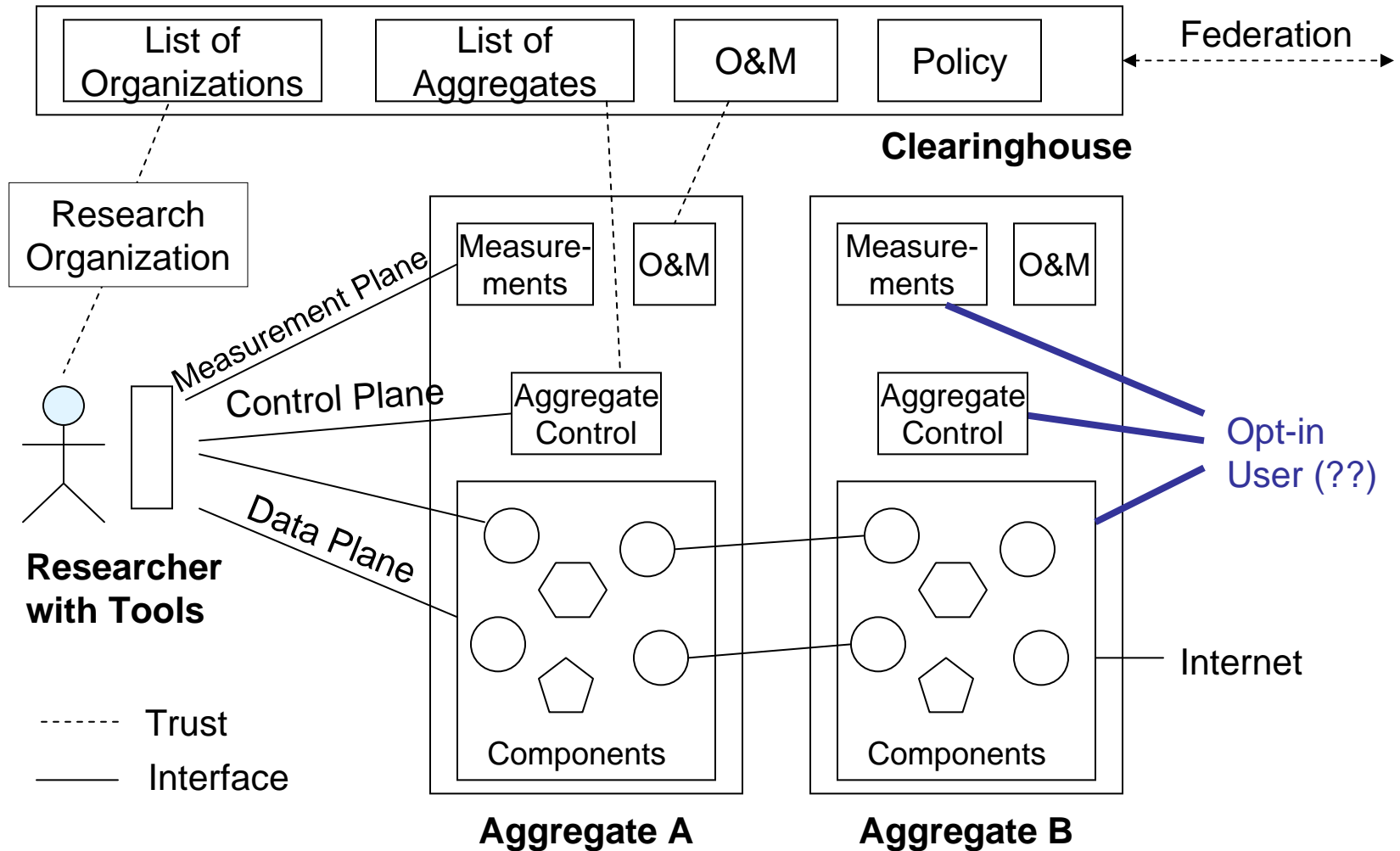
End-User Opt-in WG

- Chair: Henning Schulzrinne
- Scope:
  - *How do end-users (including Internet users) participate in GENI experiments? What are the various aspects including user interfaces, scheduling, debugging, measurement, archiving data, sandboxes, etc? What are the privacy and legal issues involved in user opt-in?*
- Activities:
  - Define opt-in technology strategies
  - Catalog technical, policy issues

Operations, Management, Integration, & Security WG

- Chair: Heidi Picher Dempsey

- Scope:
  - *What are the requirements for operating GENI and managing its services? What are GENI's security requirements, both from a researcher's viewpoint and from that of its operators?*

- Activities:
  - Technology Survey
  - Security Policy Recommendations
  - Long-term Operations Framework
  - Concept of Operations Documents
  - Facility Management Interface Requirements

- http://www.geni.net/wg
  - WG charters, mail list coordinates
  - Process description