

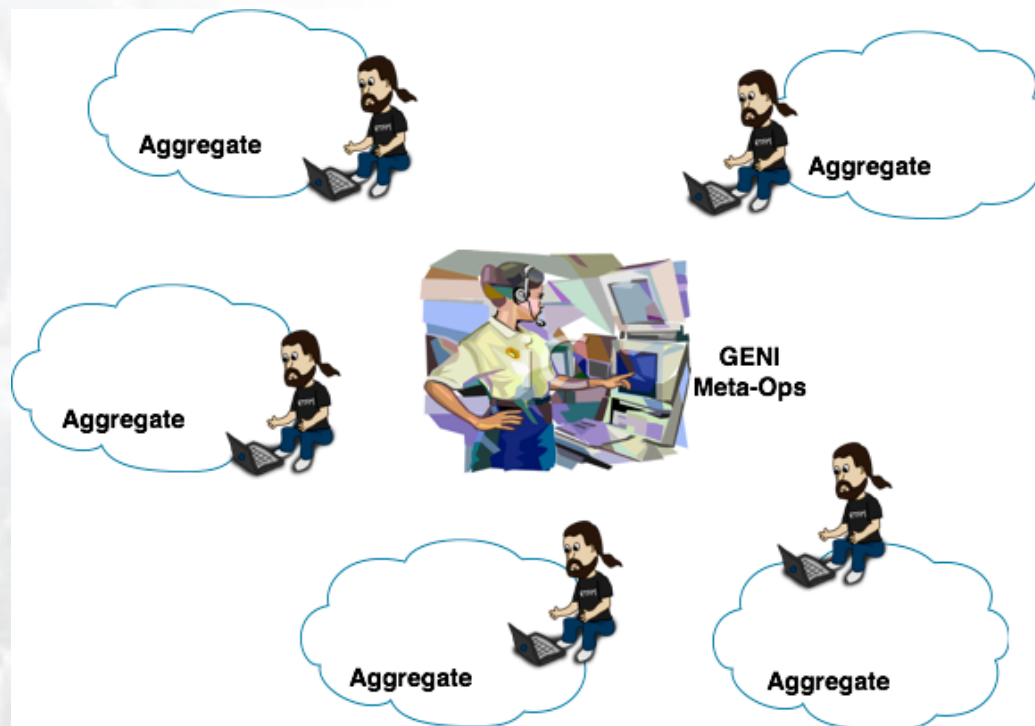
GENI Spiral 2 Security Plan

**GENI Engineering Conference 7
Durham, NC**

**Vic Thomas
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www.geni.net**

- **Role of GENI Operations is expected to increase greatly in Spiral 3**
 - Large campus build outs complete
 - New aggregates integrated
 - Many more experimenters
- **Need to prepare for this in Spiral 2**

- Network/system admins from aggregate providers
 - Personnel from lab/research group providing the aggregate and/or from their organization's IT department
- GENI Meta-Operations Center

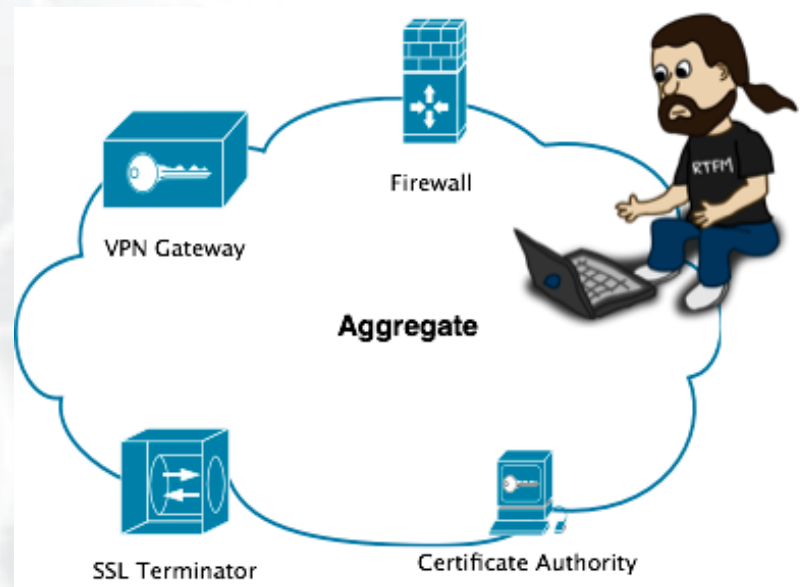


- **Develop initial set of policies and procedures for an effective GENI operations team**
 - **Aggregate provider agreement**
 - **Best practices for aggregate providers**
 - **Emergency stop procedures**
 - **Contain incident with minimal disruption to experiments not involved with incident**
 - **Procedures for responding to legal threats / law enforcement requests**

- **Required before an aggregate is associated with a clearinghouse**
 - **Aggregate resources cannot be discovered and used by GENI researchers using the clearinghouse unless agreement is in place**
- **Agreement includes the clearinghouse operator's expectation of the aggregate provider**

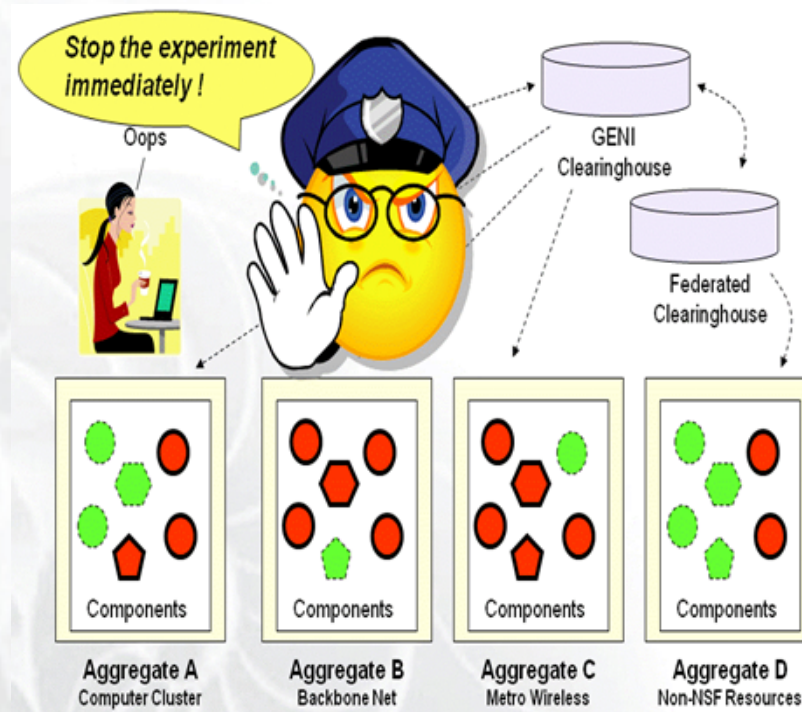
- **Issues:**
 - Who are the parties to the agreement?
 - What about existing aggregates that have not signed agreements?
- **Schedule**
 - Present draft agreement at GEC8
 - Comment period: GEC8 to GEC9
- **By GEC 10: Becomes an “Adopted Recommendation”**
- **Primary author: Adam Slagell (NCSA)**
- **Background material**
 - GENI Recommended Use Policy
 - PlanetLab agreement with PlanetLab sites
 - Grid community agreements

- **Guidance to aggregate providers on managing portions of their network that affect GENI security**



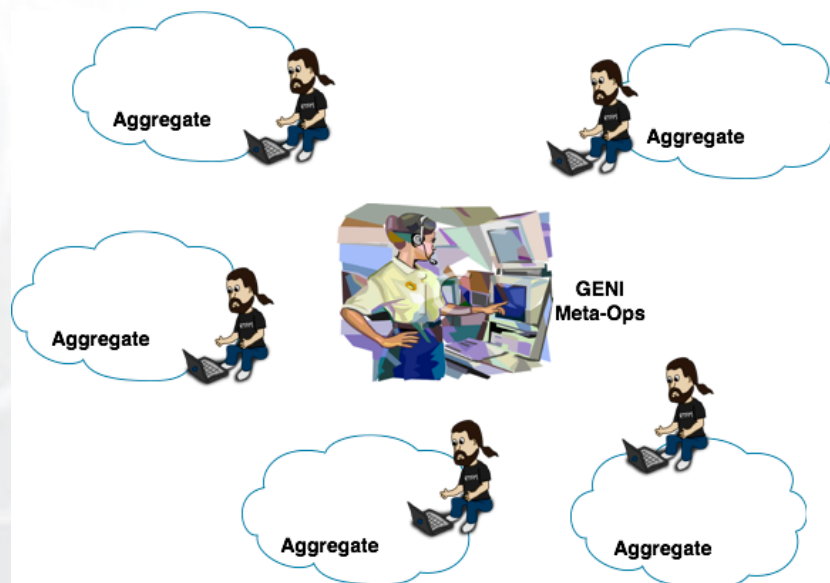
- **Issues: Aggregate providers may not have resources for on-going maintenance of best practices**
- **Schedule**
 - **GEC8: Best practices–Principles**
 - **GEC8: Best practices for mature wired aggregates (PlanetLab, Emulab, possibly ORCA)**
 - **GEC9: Best practices for OpenFlow campuses & wireless aggregates**
- **By GEC 10: Becomes an “Adopted Recommendation”**
- **Primary author: Stephen Schwab**
- **Background material**
 - **Best practices from existing testbeds**

- Procedure used to coordinate actions of GENI operations staff to stop suspicious traffic to/from a GENI resource



- **Issues:**
 - Minimize disruption to on-going experiments not involved with suspicious traffic
 - Recognition by GENI stakeholders that GENI Ops alone cannot always stop offending traffic to/from the Internet
 - Getting buy-in and cooperation from all parties
- **Schedule**
 - Present draft agreement at GEC8
 - Comment period: GEC8 to GEC9
- **By GEC 10: Becomes “Adopted Recommendation”**
- **Primary author: Jon-Paul Herron**
- **Background material**
 - **Spiral 2 Emergency Stop document (OMIS)**

- Procedures used to coordinate actions of GENI operations staff to respond to threats of legal action/law enforcement



- **Issues:**
 - Integration with existing organizational procedures
 - 1st contact by law enforcement/lawyers will likely be security officer at organization hosting GENI resources and not group managing the aggregate
- **Schedule**
 - Present draft agreement at GEC9
 - Comment period: GEC9 to GEC10
- **By GEC11: Becomes “Adopted Recommendation”**
- **Primary author: Adam Slagell (NCSA)**
- **Background material**
 - Understanding and Resolving Conflicts on PlanetLab (L.Peterson)

- **Prototype and evaluate Shibboleth-based protocols and services to provide GENI with identity and relevant attributes of researchers requesting resources**



- **Goals:**
 - Identify researcher attributes needed by GENI
 - Understand effort needed to set up a service provider (SP)
 - Define API between clearinghouse and SP
- **Task plans are TBD**
 - Which, if any, clearinghouse will this be integrated with?
 - Who will do the work?

- **Document describing Spiral 2 security plans is available at <http://groups.geni.net/geni/wiki/SpiralTwoSecurityPlans>**