

GENI Instrumentation and Measurement Working Group Meeting Report

**GENI Engineering Conference 6
Salt Lake City, UT**

**GPO System Engineer: Harry Mussman
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www.geni.net**



- **Co-Chairs:**
 - Paul Barford, Univ of Wisconsin
 - Bruce Maggs, Duke Univ and Akamai
- **GPO Systems Engineer:**
 - Harry Mussman

- Welcome and introduction, by Paul Barford (10min)
- Initial view of I&M vision, requirements, strawman, by Paul Barford (10min)
- Initial view of WG objectives for Spiral 2, by Paul Barford
- Short presentations by Spiral 2 projects involving instrumentation and measurement design and prototyping: (60min)
- [Instrumentation and Measurement for GENI \(1628\)](#) PI: Paul Barford
- [Instrumentation Tools for a GENI Prototype \(1642\)](#) PI: James Griffioen
- [OnTimeMeasure \(1764\)](#) PI: Prasad Calyam
- [Leveraging and Abstracting Measurements, perfSONAR \(1788\)](#) PI: Martin Swany
- [Scalable, Extensible, and Safe Monitoring of GENI \(1723\)](#) PI: Sonia Fahmy
- [Virtual Machine Introspection and ... for GENI \(1773\)](#) PI: Kara Nance
- [Embedding real-time substrate measurements \(1631\)](#) PI: Keren Bergman
- [Programmable Measurements over LEARN \(1733\)](#) PI: Deniz Gurkan
- [Integrated Measurement Framework \(1718\)](#) PI: Rudra Dutta
- [ORBIT measurements arrangement \(1660\)](#) PI: Marco Gruteser
- Discussion of WG Objectives for Spiral 2, by Paul Barford (30min)

- **Instrumentation and measurement systems provides broad data gathering, analysis and archival capability**
 - **Sufficient to support GENI scientific mission**
 - **Sufficient to support GENI operations**
- **Key component for success of the infrastructure**

- **Instrumentation**
 - Taps in the network and systems that provide basic signals
- **Collection & synthesis**
 - Programmable systems that collect, combine and transform basic signals
- **Archive**
 - Measurement data index and repository

Objectives of I & M WG

- **Create an architecture for measurement that enables GENI's goals to be achieved**
- **Facilitate dialog and coordination between teams focused on I & M development**
- **Identify key challenges**
 - Common schema
 - Common mechanism
 - Experimenter requirements
- **Solicit feedback from users**
- **Mailing list, wiki, GEC's**

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