GENI Future Planning Workshop
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- Kettering is an undergraduate STEM institution located in Flint Michigan

- A partner with US Ignite since 2012 and the Sustainable Ecosystem for Smart Applications

- Our focus has been on SDN and Applications

GENI is a significant piece of infrastructure that provides basic, and applied, researchers with a vital platform that is unique in its scope and capability.

- GENI has grown beyond its initial *raison d'etre*

- Incorporated into university courses and faculty have developed significant learning modules that require GENI

- Research and development collaborations and applications have emerged that rely on GENI – at minimum, as a proof of concept model.

The GENI infrastructure is of fundamental importance and should be preserved, extended, and expanded to maintain technological leadership.

- A number of initiatives are built upon GENI.
  - US Ignite Sustainable Ecosystem for Smart Applications (SESA);
  - NSFCloud
  - Smart and Connected Health (NSF 13-543) and Cyberlearning and Future Learning Technologies (NSF 15-526)
- The GENI community needs to continue to grow, and expanded beyond narrow confines of research labs

GENI is a significant national resource for next-generation internet development, and as such, it should be funded at a national level.

- Funding stability is essential.
- Federation is great for research, but federation for funding? Not so well.
- Leave it to campus CIOs (CC DNI)? Not very stable
- Leave it to communities (local or state funding)?
- Many examples of federal funding of large research infrastructures: USAP, NCAR (Observatories) , NOAA (Mauna Loa Observatories)

GENI must have a single, centralized administrative structure to serve in the fiduciary role necessary for national funding.

GENI must constantly move forward, adapt, pioneer, and evolve to remain relevant.

- GENI infrastructure must be upgraded and expanded

- To attract serious developers GENI needs to be stable and relevant.

A GPO – like function must be maintained with sufficient technical expertise with GENI and network technologies to ensure smooth, consistent, seamless day-to-day operations.

- GENI is a complex enterprise as anyone who has attempted to add new research capabilities to GENI can attest.

- Research centers are ill-suited to assume this role.

Summary

- GENI can play a key role in an emerging next-generation network infrastructure
- GENI needs to move beyond the confines of research labs and into communities
- GENI can play a key role in the creation of municipal wide virtualized networks
- Projects of national scope and importance need nation-wide funding