CHAMELEON: A FLEXIBLE AND POWERFUL EXPERIMENTAL INSTRUMENT

- **Large-scale:** “Big Data, Big Compute, Big Instrument research”
  - ~650 nodes (~14,500 cores), 5 PB disk over two sites, 2 sites connected with 100G network

- **Reconfigurable:** “As close as possible to having it in your lab”
  - Bare metal reconfiguration, single instrument, Chameleon appliances
  - Support for repeatable and reproducible experiments

- **Connected:** “One stop shopping for experimental needs”
  - Workload and Trace Archive
  - Partnerships with production clouds: CERN, OSDC, Rackspace, Google, and others
  - Partnerships with users

- **Complementary:** “Can’t do everything ourselves”
  - Complementing GENI, Grid’5000, and other experimental testbeds
PROJECT SCHEDULE

- **Fall 2014**: FutureGrid@Chameleon (FG Hotel and Alamo with OpenStack) available since Fall 2014
- **Spring 2015**: Technology Preview bare metal reconfiguration available on FG hardware to Early Users
- **Summer 2015**: New hardware: large-scale homogenous partitions available to Early Users
- **Fall 2015**: New hardware and bare metal reconfiguration generally available
- **2015/2016**: Refinements to experiment management capabilities, higher level capabilities
- **Fall 2016**: Heterogeneous hardware available
GET INVOLVED

▶ Talk to us
  ▶ Visit us at [www.chameleoncloud.org](http://www.chameleoncloud.org)
  ▶ PIs: Kate Keahey, Joe Mambretti, D.K. Panda, Paul Rad, Warren Smith, Dan Stanzione

▶ FutureGrid@Chameleon

▶ Chameleon Early User Program
  ▶ Committed users, driving and testing new capabilities, enhanced level of support and allocation

▶ Chameleon Advisory Bodies
  ▶ Research Steering Committee: advise on capabilities needed to investigate upcoming research challenges (DK Panda)
  ▶ Industry Advisory Board: provide synergy between industry and academia (Paul Rad)