

# Site Report

DOECGF

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SAND XXXX

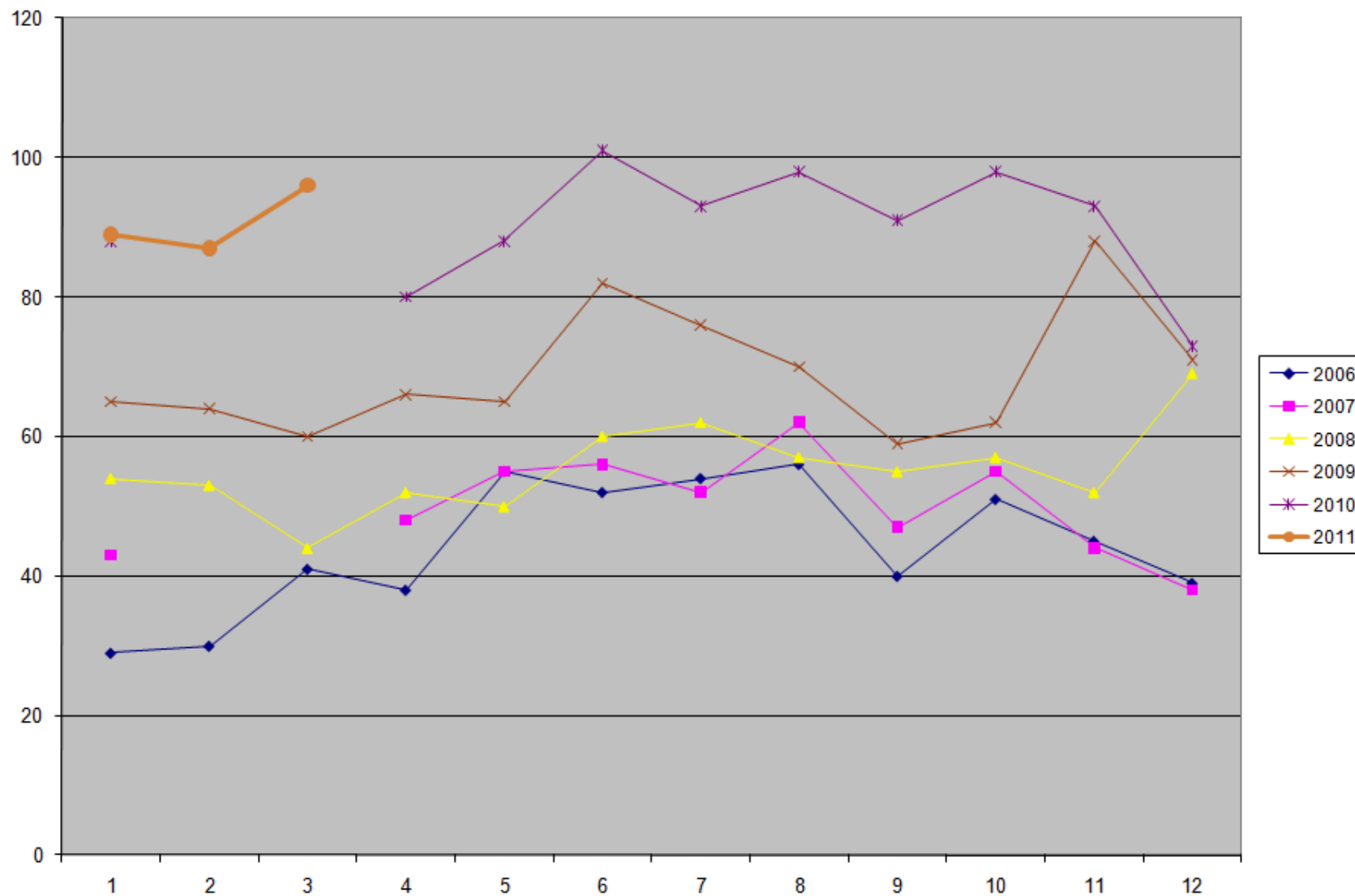
# Group mission

- 1461 Mission: Provide innovative, leading-edge scalable analysis and visualization solutions that enable understanding of complex data.
- 9326 Mission: Provide user and application support in Sandia's scientific, high performance computing environment. Support ParaView and EnSight.
- 9328 Mission: Provide hardware and system software support for customers on high performance computing platforms.

# Activities

- Develop, deploy and support ParaView 3.10.1
  - Current user base ~80 users/month
- Deploy and support EnSight 9.2.1
  - Current user base ~140 users/month
- Develop new algorithms for Paraview and VTK.
  - Prism, Material Interface Filter, CTH AMR
- Develop scalable I/O software solutions for Paraview.
  - Interactive scaling, memory footprint and In-situ
- Continued Titan framework development
- Cielo installation and user support

# ParaView growth



# Hardware

- Unclassified
  - Redsky - 2823 (8 core) general nodes
    - 64 nodes are dedicated to viz
  - Blackrose
    - 132 viz nodes with dedicated graphics cards
  - Glory – 272 (16 core) general nodes
- Classified
  - Redsky-s – a section of Redsky listed above
  - Unity, Whitney – 272 (16 core) general nodes each
  - Cielo – 6332 nodes, each with two 8 core AMD Opterons
    - 372 nodes are dedicated to viz

# Upcoming year

- Address scaling issues for interactive ParaView on Cielo
- Address latency issues for interactive ParaView on Cielo
- Continue to build in-situ visualization capabilities
  - Integrate with Sandia simulation codes
  - Partner with I/O experts to interface with staging capabilities