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# Exchanging Best Practices in Supporting Computational and Data- Intensive Research

## Extended Collaborative Support Services (ECSS)

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# XSEDE

Extreme Science and Engineering  
Discovery Environment



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# Extended Collaborative Support Services (ECSS)

*Mission: Improve the productivity of the XSEDE user community through successful, meaningful collaborations to optimize their applications, improve their work and data flows, and increase their effective use of the XSEDE digital infrastructure and broadly expands the XSEDE user base by engaging members of underrepresented communities and domain areas*

- Software optimization & parallelization, visualization, I/O tuning
- Science gateway and workflow development
- Visualization, machine learning, efficient use of accelerators
- Engagement with novel and innovative communities
- Training in high-performance and data-intensive computing

# Best practices

- Start each collaboration with a well-defined **workplan**. This sets priorities for the work, maximizes use of ECSS staff and avoids mission creep.
- Engagements must be true **collaborations**.
- **Reporting** is important – quarterly reports ensure projects stay on track, final reports measure impact.
- **Exit interviews** with PIs are extremely valuable. Can identify elements of program that work and areas that need improvement.
- Since we serve the entire academic research community, having a **critical mass** of consultants with expertise spanning many areas of science and technology is essential.

# Creating synergy

- Regular interaction between the groups that support computational research (e.g. attending each other's workshops and webinars, participations in BoFs)
- Collect best practices into a central, easy to use repository
- Capture knowledge and expertise that may have otherwise been lost. For example, XSEDE has started a technical report series for findings that do not have a home in domain journals.