EarthCube Working Group Proposal Form

EarthCube Working Group proposals should be submitted to the EarthCube Office. Upon receipt, the Office will be in touch with the group about next steps.

Please complete this form and submit it via email to rachael.black@azgs.az.gov.

Submission date: *November 20, 2014 (submitted original proposal)*
December 1 - 2, 2014 (revised proposal for resubmission)
Resubmission date: *December 7, 2014 (submitted revised proposal)*

Working Group name: Funded Projects Technology & Architecture Gap Analysis
Short name (no more than 3 words): TAC Gap Analysis (TGA)

1. Statement of Need (500 words max): The EarthCube funded projects provide vital insight into the technologies that are important for EarthCube and a vision into the architecture of a future EarthCube. Thus, there is a critical need to aggregate, coordinate, and articulate accurate and comprehensive information about the funded projects across the EarthCube community, and identify gaps in capabilities. The primary goal of this working group is to consolidate understanding about these projects, especially the available interfaces, and document outputs and interactions that projects have with each other as they progress. The working group, in its preliminary discussions, has realized that PIs/co-PIs and stakeholders for funded projects often do not have the resources to make the connections and so the working group will serve as a coordinator for the funded projects so that transparent, accurate, reliable, and timely information on the project deliverables, outcomes, prototypes, and websites are made available in a consistent manner. The primary focus of TGA will be to improve the flow of information about funded projects (e.g. the way information is presented, represented, and shared across funded projects), understand how funded projects interact, and identify gaps to promote an integrated implementation of the EarthCube Conceptual Design(s).

In order to identify gaps and guide our discussions, we will work with other Working Groups such as the TAC Use Case and TAC Testbed Working Groups, and an initial model of EarthCube testbed, based on currently funded projects consisting of the Governance, Building Blocks, and Research Coordination Networks (RCNs). In particular, the reports from the Conceptual Design awards will be used in describing an initial testbed. Based on this model, the TGA will attempt to identify possible duplication of efforts and need for new research whereby new connections and interdisciplinary collaborations may balance loads, expenses, and limited resources across the funded the projects. By conducting a gap analysis of the cyberinfrastructure, the group will attempt to identify the missing components/areas that are not currently funded by EarthCube and would be needed by the EarthCube community. In identifying these gaps the TGA will communicate, collaborate, and share resources with the funded groups so that everyone agrees with the final outcome.

Finally, the primary goal of this WG is gap analysis and not exploration and/or recommendation of evaluation standards or metrics which are important for the

EarthCube community and could be better addressed in a possible TAC Evaluation Standards and Metrics Working Group or through testbed assessment within the funded project deliverables.

2. Statement of Work: The statement work includes the following proposed deliverables.

Proposed end goal and deliverables: The proposed end goals and deliverables include the summaries of

(1) existing technical capabilities that are being provided by current projects, (2) the logic of how funded projects interface, and (3) and additional capabilities that are needed for completion of the formation of an integrated EarthCube capability.

The final report should include identification of gaps and provide recommendations for further development to reach EarthCube goals.

P**roposed final deliverables (with dates for draft releases and public requests for comments, etc.):**
The proposed final deliverables are targeted for Summer 2015 with the recommendation of presentation of preliminary findings at the All Hands Meeting.

Committed participants (at least 3 and at least from 3 different organizations): The committed participants are

- Mike Daniels (National Center for Atmospheric Research),
- Janet Fredericks (Woods Hole Oceanographic Institution)
- Tanu Malik (University of Chicago)
- Anna Kelbert (Oregon State University),
- Emily Law (NASA),
- Plato Smith (University of New Mexico),

(A call for committed participants was circulated to the participants that expressed interest in the gap analysis working group.)

3. Chair(s) and Co-Chairs (specify their time commitment to the working group):
Plato Smith – committed as necessary for the success of this working group
Co-Chairs – Anna Kelbert and Tanu Malik – limited to availability/work constraints

Initially group contact (this individual will be committed to respond to inquiries about the group and will maintain a clear description of the group's status on the EarthCube website. This duty can rotate to other people throughout the life of the working group):

Plato Smith (psmith4@unm.edu) will be the initial group contact committed to respond to inquiries about the group and will maintain a clear description of the group's status on the EarthCube website.

4. Timeline (no more than one year, with concrete goals for the first 3 months and planned goals for the rest of the quarters):

The proposed timelines include (1) January 2015 for initial dissemination of gap analysis questions to the funded projects and (2) final deliverable of report May/June 2015.

5. How does this work align with EarthCube goals and/or Standing Committee priorities (See EarthCube Charter for located on the Committee's Workspace at http://workspace.earthcube.org/technology-committee):

The proposed work of the TGA aligns with EarthCube's Technology and Architecture Committee Functions, specifically functions #1, 2, 4, 5, 6, 7, and 8. http://workspace.earthcube.org/technology-committee

6. Risk assessment (what might lead to failure, how do you propose to mitigate those risks):

The level of engagement with funded project PIs impacts the success of this working group. If engagement is strong, then the working is more likely to succeed. Mitigating risk factors include developing WG specific interactions and effective engagement from PIs through individual phone calls, interview at all hands meeting, and the most appropriate form of inter-personal communications. The success of this WG depends on its ability to engage current EarthCube funded projects. This WG will seek participation in the WG of additional people involved in each of the EarthCube funded projects.

7. Do you have any available resources you plan to use (e.g. datasets, people, IT, etc.)? What is needed for attendance, support, and guidance?

Yes, the working group plans to utilize existing resources offered by EarthCube and available funded projects outputs to promote the likelihood of success for this working group. TGA participants are encouraged to leverage assets from the EarthCube office.

8. What resources do you anticipate you will need from the EarthCube Office (Web page resources, WebEx, past EarthCube documentation, etc.)?

The TGA working group will need (1) web page resources, (2) WebEx, and (3) current and past EarthCube documentation, including project abstracts (e.g. funded proposals and DMPs - data management plans). We request resources to attend key EarthCube meetings where PIs will be present to leverage opportunities of in person interviews and information collection.

Informal Budget (formal meeting of TGA WG members at All Hands Meeting):

- Request $10000 ($1666 * 6 (# of committed TGA WG members))
- $500 average flights and ground transportation, plus $160/night for 4 night hotel and 5 days per diem at $75/day, for a total of approx. $1500 ~ $1666 per person
- TGA WG members will interview at least 2-3 project PIs (projects - questions will be developed in advance)
- All TGA WG attendees will contribute to the goals of this working group

9. What coordination do you anticipate you will need with other EarthCube groups

(Other Committees, Engagement and Liaison Teams, Funded Projects, etc.)?

The TGA WG will coordinate with the currently proposed TAC Use Cases and TAC Testbed working groups and other EarthCube working groups as they are formed, including but not limited a point-of-contact for each funded project.

One of the approaches of the TGA WG to solicit information from the funded projects is a list of questions. The list of questions will be developed within the TGA WG and coordinated across the TAC working groups to minimize the number of responses requested by the TAC from the funded projects.