
American Museum of Natural History CC* Science Drivers and Process

AMNH Project

- Through the National Science Foundation CC* program, this project provides a high-speed Science DMZ, a network specifically tuned for large data transfers, at the American Museum of Natural History.
- Rebecca Oppenheimer, senior scientist in Astrophysics, is Co-PI with me as is Michael Benedetto, Deputy CIO.
- Advisory Committee – one physical scientist and one biologist - both IT savvy.
- Oppenheimer's lab has a compelling science driver: an opportunity to optimize large data set transfers between remote mountain observatories and AMNH, enabling a quick turnaround in the analysis of the data and more intelligent use of instruments.
- Sackler Institute of Genomics science driver.

IT Engagement with Science

- Helps to start this before you ever think of submitting an NSF grant proposal.
- Continual presence at Science Senate.
- Meeting with scientists to learn about their work, successes and challenges.
- Public commitment to enhancing and expanding scientific computing wherever possible.
- Follow up with actions:
 - HPC management service.
 - Lending expertise whenever needed.
 - Dedicating staff to scientific computing.

Grant Process

- Early conceptual meetings with researchers. These were natural extensions of the fact-finding conversations we had had with Science.
- Mike Benedetto started talking to me about CC* as soon as I walked into the door at AMNH.
- Grant specific meetings with researchers who could potentially provide science drivers.
- Questionnaire sent to researchers to define data transfer and collaboration needs.
- Engagement with the Provost.

Difficulties

- Started in 2017.
- NSF notice came during a period when many of our researchers were out in the field collecting data.
- We got word of the availability of the grant to scientists individually.
- Tremendous enthusiasm at first.
- When we got everyone together, it turned out that many did not have time. Others were concerned they wouldn't have time to do a good job on the submission.
- Decided to wait a year.
- Developed the process that we used in 2018.