

2020 Virtual Campus Cyberinfrastructure Program Seminar Series

**Seminar #6
Preparing to Submit a Grant
October 6, 2020**



Seminar Reminders

- Please mute during the presentation
- Please use the Zoom Chat to ask questions during the presentation. They will be read during the Q&A session
- Unmute to ask questions during the Q&A



2020 Virtual Campus Cyberinfrastructure Program Seminar Series

- Seminar #1 – Determining Your Desired Role within Your Community and Submitting a Regional or Planning Grant
- Seminar #2 – Identification of Research and Education Science Research and Application Drivers
- Seminar #3 – Identifying Campus Infrastructure Needs
- Seminar #4 – Develop a CI Plan
- Seminar #5 – Campus Compute Components
- **Seminar #6 – Preparing to Submit a Grant, Tuesday, October 6 3-4:30 pm ET**



Agenda

- Background from Kevin Thompson's The Quilt Fall Meeting presentation
- Preparing to Submit a Grant
 - Proposal Submission (FastLane)
 - Grant Components
 - What to Prepare in Advance
- Panel - Perspectives On Submitting Grants
 - Marianne Chitwood
 - Celeste Anderson
 - Jim Bottum
- Q&A
- Resources



Summary #s for NSF's Campus CI Program 2012-2020

- ~340 awards (not including workshops, EAGER)
- \$100M+ invested over 9 years (FY12-FY20)
- 49 states and jurisdictions represented on award map
- Award categories [aggregate (FY20)]:
 - Campus Networking Upgrades: 143 (6)
 - Network Integration/Innovation: 60 (10)
 - Regional/Network Design (small institutions): 37 (3)
 - CyberTeam / CI Engineer: 33 (5)
 - Compute: 33 (19)
 - Other: 35 (7 planning grants area#6)



CC* status

- CC* 20-507 produced ~50 awards, a few notes:
 - CC* remains networking-centric
 - Healthy response to CC*Compute
 - Cyber Team area ends in CC* - see CyberTraining program and others for related future funding opportunities
 - All panels were conducted virtually*
- 2020-2021 CC* solicitation
 - Expected later in 2020
 - Note that CC* has a consistent history of some changes from one solicitation to the next



Proposal Submission

- Writing the proposal is not enough
 - Must submit a COMPLETE proposal using one of the submission mechanisms mentioned in the solicitation
 - Fastlane
 - Research.gov
 - Grants.gov
 - Separate guidelines for each submission mechanism.
 - Make sure you review the submission guidelines for the mechanism you have picked
 - Incomplete submission is returned without the proposal being reviewed
 - Seems obvious, but mistakes are made each year resulting in proposals that are not reviewed



Proposal Submission

- To submit a proposal, organization AND PI and co-PI's (and their organizations) must be listed in the system
 - Do not wait until the last minute to do this !
- Single Sign On
 - Once you have a ID and password, Fastlane and Research.gov use a single sign on
 - Convenient since you will have access to the functions in both
 - BUT, make sure you know which system you are in.



Proposal Submission

- Seminar will focus on using FastLane as the submission mechanism
 - What I am most familiar with and what is most commonly used by our community
 - When you log into FastLane, have the option of submitting grants to either FastLane or Research.gov. Make sure you pay attention to which one you are using
- For Universities, Office of Sponsored Research (or equivalent) is typically responsible for this (Yay!)



Submission Submission

- If you have never submitted a grant
 - As an organization – start well ahead of the grant deadline to get your organization registered in the system.
 - There will be paperwork to submit for the organization
 - If you are requesting more than \$250K you will have to go through a financial audit if you receive the grant
 - LEARN and CENIC have experience with this
 - As a PI or Co-PI – register in advance as well. Important for when you want to be listed on the submitted proposal
 - Multiple times I taken a co-PI off the grant since we were not able to get them into the system in a timely manner
 - They can be listed as senior personnel instead



fastlane.nsf.gov

How to get to Fastlane Proposal Functions



FastLane is an internet time system used to conduct NSF business over the Internet. FastLane is for official use only. [More About FastLane...](#)

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**FastLane
User
Support**

(7 AM to 9 PM Eastern Time • M-F)
1-800-673-6188

[Proposals, Awards and Status](#) | [Proposal Review](#) | [Panelist Functions](#) | [Research Administration](#) | [Financial Functions](#)

[Honorary Awards](#) | [Graduate Research Fellowship Program](#) | [Postdoctoral Fellowships and Other Programs](#)

Quick Link

- ▶ [Special Exceptions to the NSF Deadline Date Policy Due to Natural or Anthropogenic Events](#)
- ▶ [Registration Information](#)
- ▶ [Award Search and Funding Trends](#)
- ▶ [FastLane FAQs \(Opens new Browser Window\)](#)
- ▶ [Grants.gov FAQ \(Opens new Browser Window\)](#)
- ▶ [DEMONSTRATION SITE](#)

System Use Notification

This is a National Science Foundation (NSF) Federal Government computer system. Any system activity may be monitored and any information stored within the system may be retrieved and used by authorized personnel for law enforcement, management, routine system operations, or other purposes. By using this computer system, you are consenting to such monitoring and information retrieval and use.

Unauthorized use of the system, including disclosure of information covered by the Privacy Act or other sensitive information, or attempts to defraud

Advisories

- 09/21/20** - Primary email address option for Research.gov sign-in and NSF account password recovery begins September 28, 2020. [Click here to learn more.](#)
- 09/14/20** - Enforcement of the PAPPG (NSF 20-1) requirement to use NSF-approved Biographical Sketch and Current and Pending Support formats (SciENcv or NSF fillable PDF) begins 10/5/20. [Click here to learn more.](#)
- 08/18/20** - **ATTENTION PROPOSAL REVIEWERS:** NSF recommends viewing Biographical Sketch and Current & Pending Support PDF files using internet browsers Microsoft Edge, Chrome, or Firefox for an optimized experience.
- 06/04/20** - **Attention:** GRFP Coordinating Official, Alternate Coordinating Official and Financial Official roles are for organizations that offer graduate degrees and have active GRFP awards. [Click here for more.](#)
- 07/22/19** - **ATTENTION:** On August 20, 2019, NSF began enforcing the grace period for users with multiple NSF accounts. [Click here for information to avoid systems access suspension if you have multiple accounts.](#)

THE QUILT



Fastlane proposal functions screen



FastLane is an interactive real-time system used to conduct NSF business over the Internet. FastLane is for official NSF use only. [More About FastLane...](#)

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[Honorary Awards](#) | [Graduate Research Fellowship Program](#) | [Postdoctoral Fellowships and Other Programs](#)

Quick Links

- ▶ [Help for Proposal Preparation](#)
- ▶ [Frequently Asked Questions About FastLane Proposal Preparation](#)
- ▶ [Proposal & Award Policies & Procedures Guide](#)
- ▶ [Deadlines and Target Dates](#)
- ▶ [Lookup NSF ID](#)

Proposals, Awards and Status

Research.gov Proposal Preparation System

Research.gov's new proposal preparation system is now available for preparing and submitting full research non-collaborative proposals. Please use the link below to access the new system:

[Research.gov Proposal Preparation](#)

[Log in for the following permission-based functions:](#)

- ▶ Proposal Functions
 - Letters of Intent
 - Proposal Preparation
 - Proposal Status - Disabled in FastLane. Sign in to [Research.gov](#)
 - Display Reference Status
 - Revise Submitted Proposal Budget
 - Proposal File Update
- ▶ Award and Reporting Functions
 - Notifications and Requests
 - Continuation Funding Status
 - View/Print Award Documents
 - Project Reports System - Disabled in FastLane. Sign in to [Research.gov](#)
 - Supplemental Funding Request
- ▶ Change PI Information

Where you login

PI/Co-PI Log In

Single Sign On is now available for Principal Investigators (PIs) to utilize both FastLane and Research.gov

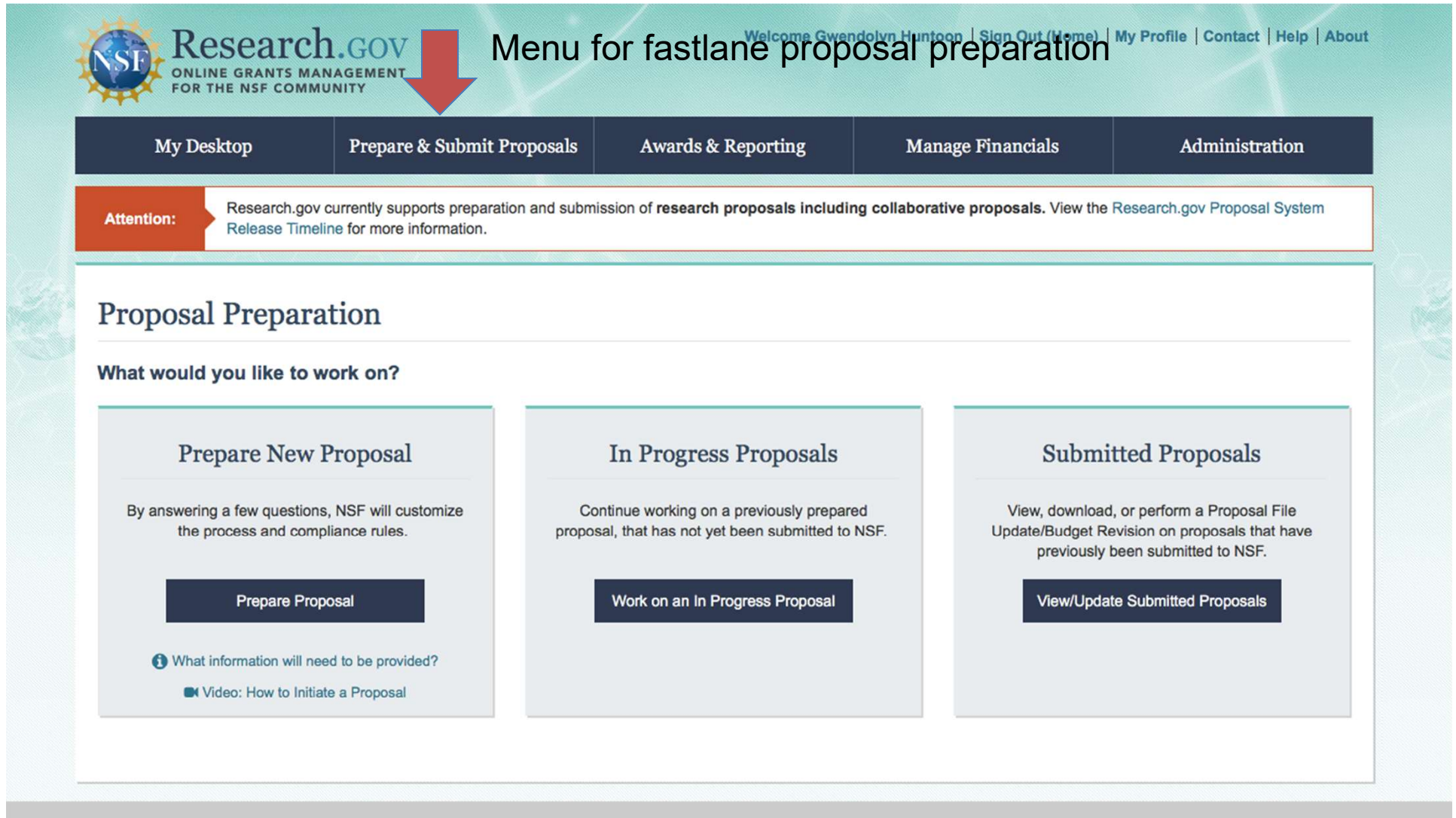
[Sign In to FastLane/Research.gov](#)

[Forgot Password?](#)
[Lookup NSF ID](#)

THE QUILT



Once you log in you are in research.gov



The screenshot displays the Research.gov website interface. At the top left is the NSF Research.gov logo with the tagline "ONLINE GRANTS MANAGEMENT FOR THE NSF COMMUNITY". A red arrow points from the logo area to the "Prepare & Submit Proposals" menu item. The top right navigation bar includes the text "Welcome Gwendolyn Huntoon | Sign Out (Home) | My Profile | Contact | Help | About". Below the navigation bar is a horizontal menu with five items: "My Desktop", "Prepare & Submit Proposals", "Awards & Reporting", "Manage Financials", and "Administration". A red "Attention:" banner below the menu states: "Research.gov currently supports preparation and submission of **research proposals** including **collaborative proposals**. View the [Research.gov Proposal System Release Timeline](#) for more information." The main content area is titled "Proposal Preparation" and asks "What would you like to work on?". It features three columns: "Prepare New Proposal" (with a "Prepare Proposal" button and a link to "What information will need to be provided?" and a video "How to Initiate a Proposal"), "In Progress Proposals" (with a "Work on an In Progress Proposal" button), and "Submitted Proposals" (with a "View/Update Submitted Proposals" button).

NSF Research.gov
ONLINE GRANTS MANAGEMENT
FOR THE NSF COMMUNITY

Welcome Gwendolyn Huntoon | Sign Out (Home) | My Profile | Contact | Help | About

Menu for fastlane proposal preparation

My Desktop Prepare & Submit Proposals Awards & Reporting Manage Financials Administration

Attention: Research.gov currently supports preparation and submission of **research proposals** including **collaborative proposals**. View the [Research.gov Proposal System Release Timeline](#) for more information.

Proposal Preparation

What would you like to work on?

Prepare New Proposal

By answering a few questions, NSF will customize the process and compliance rules.

[Prepare Proposal](#)

[What information will need to be provided?](#)

[Video: How to Initiate a Proposal](#)

In Progress Proposals

Continue working on a previously prepared proposal, that has not yet been submitted to NSF.

[Work on an In Progress Proposal](#)

Submitted Proposals

View, download, or perform a Proposal File Update/Budget Revision on proposals that have previously been submitted to NSF.

[View/Update Submitted Proposals](#)

THE QUILT



Fastlane Proposal PI/Co-PI Screen



FastLane

[Home](#)

[News](#)

[Comments](#)

[Change Password](#)

[nsf.gov](#)

Quick Links

► [Help for Proposal Preparation](#)

► [Frequently Asked Questions About FastLane Proposal Preparation](#)

► [Proposal & Award Policies & Procedures Guide](#)

► [Deadlines and Target Dates](#)

► [Convert Files to PDF](#)

Principal Investigator(PI)/Co-Principal Investigator(Co-PI) Management

What Do You Want To Work On?

► [Proposal Functions](#)

► [Award And Reporting Functions](#)

► [Change PI Demographic Information](#) - Disabled in FastLane. Go to [My Profile in Research.gov](#).

► [Research.gov Functions](#)

Gets you to the Proposal Portal

Easy access to proposal policies and guidelines

National Science Foundation
2415 Eisenhower Avenue
Alexandria, Virginia 22314, USA
Tel: 703-292-5111
FIRS: 800-877-8339
TDD: 703-292-5090

Last Modified:
Nov 2001 (CM)



Proposal Submission

- Submission Guidelines
 - Proposal & Award Policies & Procedures Guide (PAPPG), June 2020
 - https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20001
 - Note updated June 2020
 - Overview of changes can be found here:
 - https://www.nsf.gov/pubs/policydocs/pappg20_1/sigchanges.jsp
 - Biosketches, Current and Pending support have changes listed so if you are reusing the forms from previous grants, make sure the format is still correct



Grant Components

A full research proposal must contain the following sections. Note that the NSF Grants.gov Application Guide may use different naming conventions, and sections may appear in a different order than in FastLane, however, the content is the same:

- Cover Sheet
- Project Summary
- Table of Contents
- Project Description
- References Cited
- Biographical Sketch(es)
- Budget and Budget Justification
- Current and Pending Support
- Facilities, Equipment and Other Resources
- Special Information and Supplementary Documentation
 - Data Management Plan
 - Postdoctoral Mentoring Plan (if applicable)
- Single Copy Documents
 - Collaborators & Other Affiliations Information



Grant Components (Where to Start)

- Identify Solicitation (e.g. Campus Cyberinfrastructure)
 - If current solicitation is not out, read over the previous one to get a general idea on what is requested
 - Read abstracts of the funded projects for the area you are interested in
 - Award Search function on NSF.gov is your friend.
 - Use advanced search and restrict to the program officer (OAC) and use the area information in the title search (i.e., CC Compute)
 - Restrict the date(s) for the awards so you get the most recent abstracts
- Ask members of the community if they will share with you a copy of a funded proposal



Grant Components (What to Do in Advance)

Everything in **RED** is something you can work on in advance and in many instances is solicitation independent. Remember to re-read the documents and tailor the information to the solicitation once it comes out.

- Cover Sheet
- Project Summary
- Table of Contents
- Project Description
- References Cited
- **Biographical Sketch(es)**
- Budget and Budget Justification
- **Current and Pending Support**
- **Facilities, Equipment and Other Resources**
- **Special Information and Supplementary Documentation**
 - **Data Management Plan**
 - Postdoctoral Mentoring Plan (if applicable)
- Single Copy Documents
 - **Collaborators & Other Affiliations Information**



Grant Components (What to Do in Advance)

- Biographical Sketch(es)
 - For each PI and Co-PI. Best practice is to keep on hand one for each of your staff members that may be listed as PI, co-PI or Senior Personnel and then update them before submitting with a new grant.
 - Note that the format may have changed for grants submitted after Oct 5, 2020.
- Current and Pending Support
 - Same as above. For each PI and co-PI listed on the grant.
 - MAKE SURE YOU LIST THE CURRENT GRANT (i.e, the one you are submitting as) PENDING.
 - Proposals are returned, not reviewed when it is not listed.
- Facilities, Equipment and Other Resources
 - Have a general description for this document and then pick the sections that are relevant to the specific solicitation.
 - For example, a Campus Compute proposal should have detailed information about the current campus computing environment, but a shorter section would be needed for a Network Infrastructure submission.



Grant Components (What to Do in Advance)

- Special Information and Supplementary Documentation
 - Data Management Plan - Required for all proposals. Must be tailored to the specific proposal you are submitting, but you can get examples of submitted Data Management Plans in advance of the solicitation so that you know what is needed.
 - Campus Cyberinfrastructure (CI) Plan – Typically required for all CC* Areas.
 - Recommend you draft in advance and then tailor to the specific area that you are submitting to.
 - Solicitation has required components for the CI Plan. Make sure you update plan to include all of the components.
- Single Copy Documents
 - Collaborators & Other Affiliations Information – similar to Biosketches and Current & Pending can be done in advance and updated.



General Tips

- There is a lot to do in order to submit a complete proposal
- Typically only have 90 days to prepare and submit a proposal
 - It can be done in less time, but you have to have a focused effort and the experience to avoid submission mistakes
 - If you are new to this, DO NOT wait until the last minute
- Do what you can in advance and have someone review it
 - Review again prior to submission to ensure it is correct !



General Tips

- Use a checklist
 - The PAPPG includes a checklist:
 - https://www.nsf.gov/pubs/policydocs/pappg20_1/pappg_2.jsp#2ex1
 - Update/make your own in order to include items specific to your submission
- Identify a person to manage the proposal writing and submission process
 - Not responsible for all the work, but makes sure everything is completed on a timely basis
- Be aware of internal organizational deadlines
 - Many universities want the full package at least one week prior to submission



General Tips

- Corraling your collaborators
 - Most difficult part of a CC* submission is often getting all the required documents from your co-PIs, senior personnel, application driver collaborators (Letters of Collaboration)
 - If appropriate, can facilitate the process if you have templates for the various documents.
 - Have one person in your group responsible for communicating and collecting the documents
 - You may have to drop a co-PI, senior personnel or application driver if you don't get the information in time to submit



General Tips

- Manage your vendors
 - Quotes from vendors are a critical part of the proposal submission since most are infrastructure (equipment) proposals.
 - Get quotes from multiple vendors
 - Make sure to have variations in case your ideal solution does not fall within the budgeted amount.
 - Be careful of Vendor additions, including unnecessary vendor support – reviewers are often sensitive to what looks like a money grab from a vendor.
 - Provide a firm deadline, well in advance of the grant due date for the vendor quotes. Provide enough time to negotiate –either different equipment or better pricing.



General Tips

- Get help, where appropriate
 - From your Regional Network if you are a college or university
 - Other organizations and colleagues who have funded grants in this area
 - Consultants and Vendors
- What they can help with
 - Technical support
 - Identify collaborators for application drivers, especially outside the region (or even US)
 - Quotes and other information for any WAN connectivity as part of the grant.
- Watch out for
 - Make sure grant reflects your organization and “voice”
 - Replicating too closely what is in someone else’s submission



Panel: Perspectives from Funded Proposals

- Marianne Chitwood
- Celeste Anderson
- Jim Bottum



I-Light Assisting its members with NSF CC* Grant Submissions

Marianne Chitwood, Director
I-Light and Indiana GigaPOP



I-Light Network and Mission

- I-Light is the regional optical network in Indiana connecting all public and private and community colleges.
- Member sites connect to I-Light at speeds starting at 1 Gigabit to 100 Gigabits per second. The I-Light team provides members with responsive, expert support and can provide even larger, on-demand connections between research groups when needed.
- I-Light enables a variety of capabilities such as:
 - High-quality video connections
 - Exchange of large data files
 - Access to supercomputers and scientific data storage facilities
 - Multi-campus collaborative research projects



I-Light Members CC* Proposal Assistance

I-Light Members with recent winning CC* proposals:

IU Regional Campuses
DePauw University
Earlham College
Wabash College



Indiana University Regional Campuses

The goal of this proposal was to upgrade each of the Regional Campuses' network connections to I-Light, Indiana's high-speed fiber optic network for the research and education communities. Proposal was to upgrade each connection from 1 Gig to 10 Gig.

A second goal was is to install and configure a Data Transfer Node (DTN) with high speed storage to be located at each regional campus. The DTN provides short term local storage, handle protocol conversions and batch transfers of the data to IU central research storage at a higher speed than offered by typical desktop computing resources.



DePauw University

Upgrade the campus connection to national research networks via Indiana's regional network provider, I-Light, to 10Gbps; build critical redundancy by adding a secondary fiber optic link to I-Light; and implements a science demilitarized zone (DMZ) with high performance data transfer and PerfSonar nodes.

The CI improvements in this project addressed the research needs for projects in computer science, biology and chemistry, and dramatically improve access to national research networks and resources to enable DePauw science faculty and students to conduct innovative science research and scholarly collaborations across multiple scientific disciplines.



Earlham College

The project was comprised of the following tasks:

- Upgrading the I-Light connection to 10Gbps
- Upgrading the core network equipment to 10Gbps
- Pulling single mode fiber from the science complex to the ITS primary data center and from the fiber demarcation point in the science complex to the CS data center and two secondary wiring closets.
- Upgrading Science Complex aggregate switches, edge switches, and Computer Science data center switches to 10Gbps
- Creating a virtual 10Gbps research network through the campus network to I-Light bypassing the firewall filters and rate limiting devices



Wabash College

This project will improve the campus cyberinfrastructure at Wabash College in three areas:

- To support increased demand by researchers for bandwidth both across campus and beyond.
- A new fiber build will support increased bandwidth to national research networks via the regional network, I-Light, to 10Gbps.
- Improvements to the campus network infrastructure increasing the connection speed to both campus science buildings to 10Gbps and providing redundant network paths.
- A new Science DMZ will ensure high-performance data transfer across the regional and national research networks.



Role that I-Light plays in assisting members with CC* Proposals

Informing campuses when new solicitations are open
broad email distribution
individual contacts

Encouraging participation in workshops on how to submit a proposal

Individual consulting with members about opportunities and next steps, identifying collaboration opportunities between members.



Role that I-Light plays in assisting members with CC* Proposals

Assisting members in identifying science drivers and broader impact

Providing assistance with campus CI plans (hopefully in advance of a solicitation announcement)

Consulting on network designs

Working with campuses contract and grant administrators making sure they can access Fastlane and have appropriate credentials to submit proposals



Ways that I-Light helps

Example of DePauw/ILight NSF CC* Grant Network Final Design Consult

- Review proposed design
- Discuss any changes/alternatives/best practices
- Routing protocols
- Internal network routing (OSPF, BGP, VRRP, etc.) accommodate 2nd ILight link
- Border router needs
- ILight connections
- Discuss specs for:
 - Data transfer node
 - Perfsonar 10Gbs
 - Border router(s)
 - IPV6 Migration advice



How to find the researchers

- Finding researchers using your resources
- Finding researchers using XSEDE/TACC
- Finding researchers with grants
- Finding researchers with network tools



Who is using your network today

- Most research is collaborative research, but it often starts with local prototyping
- Who's using your compute resources?
- Who's using your data archives?
- Who's bought large instruments recently?
 - If this is communicated to you....



Engagement and Performance Operations Center (EPOC)

Joint project between Indiana University and ESnet

PI is Dr. Jennifer Schopf from Indiana University
co PI Jent (IU/GlobalNOC) and Zurawski (ESnet)

Is part of the CC* program and was awarded \$3.5M over 3 years

Partnerships with regional networks and science communities that span the NSF and DOE continuum of funding



Finding the researchers with grants

- Funding agencies issue *solicitations*
 - Specific details about areas of research they want to fund
 - Often include specific directives- scope, evaluation criteria
- Researcher (*PI*) responds with a *proposal*
 - Have a good idea that's relevant
 - Put together the team to respond to it
 - Writeup, budget, supporting materials
- Funding agency reviews proposals
 - Generally only a small percentage are funded
 - Generally, they involve multiple researchers, often at different institutions



NSF Advanced Award Search



National Science Foundation
WHERE DISCOVERIES BEGIN



HOME

RESEARCH AREAS

FUNDING

AWARDS

DOCUMENT LIBRARY

NEWS

ABOUT NSF

Simple Search

Advanced Search

Popular Searches

Download Awards

Send Comments

Award Search Help

Awards Advanced Search

[Overview of Award Search Features](#)

Awardee Information	
Principal Investigator First Name	Organization
Principal Investigator Last Name	State Select one
☐ Include Co-Principal Investigator in name search	Zip Code
	Country Select one

Program Information	
NSF Organization Select one	HINT: The "Program" box searches both program element and program reference names and codes.
Element Code Any All	Program
Reference Code Any All	Program Officer

Additional Information	
Keyword	HINT: Data prior to 1976 may be less complete.

Finding the researchers with tools like Netsage

NetSage framework

- SNMP, perfSONAR, Flow, Tstat Data
- Grafana-based dashboards to visualize performance
- <http://portal.netsage.global>



Netsage in a nutshell

- NetSage advanced measurement services for R&E data traffic
 - Better understanding of current traffic patterns across instrumented circuits
 - Better understanding of large flow sources/sinks
 - Performance information for data transfers
- Originally funded by the NSF international program, software is now being deployed domestically as well
- International networks dashboards: <http://portal.netsage.global>



We have identified the research now what

Be prepared to do a lot of hand holding and provide guidance throughout the grant submittal process.

- Reviewing proposals

- Helping with campus CI plans

- Fastlane

- Letters of Collaboration



NSF Solicitation tips for regionals



Getting Started – Before Announcement

- Before the solicitation is announced, talk with your participant networks. Identify needs, potential collaborators, science drivers.
- Create, improve or update your cyberinfrastructure and/or data management plan.
 - If you don't have a plan yet, this would be good time to develop one. Be sure to deal with IPv6, cybersecurity, privacy and other required components.
 - If you need to incorporate plans from multiple entities, you can start working with them to develop or update their plans.



Getting Started – After Announcement

- It is important to be able to pull together your team as soon as the solicitation comes out. The longer it takes you to assemble the team, the less time for writing the proposal.
- Regular conference calls or meetings help to keep everyone on track and issues identified and remediated.
- Read through the solicitation carefully and identify required elements.
- Identify those items which will take some time and make sure they are assigned to a team member with due dates.
- **CAVEAT:** Be sure to follow the specific instructions for the solicitation, e.g., some require letters of support, some will reject those.



Project Summary

- Usually a good idea to write this AFTER completing the Project Description.
- This section “sells” the proposal.
- One-page limit, so need to be concise.
- Make sure to touch on INTELLECTUAL MERIT and BROADER IMPACTS



Project Description: Balancing content

- Allow your team time to reduce descriptions to the match the goals of the project. It takes time to stitch together various contributions.
- Include enough information to assess the importance of the work and the benefit to science and society without a lengthy or detailed description of the work itself.
 - Remember there are page limits, and you can use citations to point to scientific papers and articles.
- Infrastructure descriptions should also include relevant information on how the science will be supported and the capabilities of the team to complete the project.
 - Keep in mind that the facilities section can include your existing capabilities.



Project Description: Project Plan

- A solid description of the work plan along with milestones shows reviewers that your team is capable and ready to execute.
 - Be as clear as you can be.
 - Vague or missing milestones, goals will be noticed by reviewers.
 - A concise workplan chart allows reviewers to understand your approach and assess the feasibility.



Assembling the proposal

- One or more team members should familiarize themselves with Fastlane OR Research.gov.
 - Most people are familiar with Fastlane, but the portal is old technology and takes time to load and check. Research.gov proposal portal has some nice features, but there have been reports of issues in the submission process. ALLOW time to resolve issues.
- As sections are completed, they can be uploaded into portal. This allows for identifying issues with content prior to submission deadline.



Assembling the proposal

- There are various ways to manage content. We discovered that at some point, the working files need to be separated from the “authoritative” versions so that the team is not editing the incorrect version.
- Allow time for multiple iterations as the team attempts to meet page limits, last minute content, and inclusion of citations. REMEMBER URLS are not allowed in your project description.
- Line up multiple proof-readers – everyone catches something different. Collectively – a better proposal.



Preparing to Submit a Grant Proposal



Jim Bottum

- Internet2 Fellow
- Research Professor
Emeritus, Clemson
University
- Private Consultant

Experience

- Varied Experience as:
 - NSF Program Officer and Expert
 - HPC Center Director
 - CIO
 - Research Professor
 - “Free Lancer” – working with HBCUs and TCUs;
 - Advisory capacity supporting others
- Funded by the NSF for 34 consecutive years (1986 - 2020) as:
 - Senior personnel, co-PI and over 20 years as PI
- Award range and type
 - \$300K/yr (EAGER) - \$35M/yr (PACI)
 - Includes ~ 8 CC* awards



Proposal Development Process

- Critical to have a support team in place including:
 - Business/finance; sponsored research; technical; academic
 - Recommend a single POC/team lead
 - PI is the QB
 - Schedule and communication plan
 - Dates for departmental business/grants office AND to OSR
- Read and understand the solicitation (excluding unsolicited proposals)
 - Talk to program official if necessary
 - Pay particular attention to the evaluation criteria; how you address these has to be crystal clear in the proposal
 - Make a list of all required items e.g., Campus CI Plan
<https://fasterdata.es.net/campusCIplanning/> ; Current and Pending etc.



Proposal Development Process

- Early on develop an outline for the proposal including a timeline
 - This is the time to pull together your major themes
 - First shot at an executive summary
- Work breakdown and assignments
 - Have an overall view of the proposal but get everyone working as soon as possible
- Establish and keep a regular touch base for oversight and to keep on schedule – POC critical here
 - Especially relevant for multi-institutional proposals



What can we do in advance

- Research/network to learn what you can in advance about impending solicitations
 - Many NSF solicitations come out exactly at (Sustainable CI, REU Site) or roughly at the same time each year (CC*)
 - Some tell you areas that will be discontinued in advance e.g., CC* Cybertteams
- Fully understand in advance what the solicitation wants and how you are addressing
- Contact and recruit critical partners
 - Research application drivers
 - If CC* Area 4 – national resource sharing source like OSG
 - Vendor(s)
- Read awards made in previous years
- Recruit your team



Q&A

- Questions For the Panelists
- General Questions



Resources

- NSF
 - 2020 CC* Solicitation – to become familiar with the solicitation
 - <https://www.nsf.gov/pubs/2020/nsf20507/nsf20507.htm>
 - Search Awards – to see what has been awarded
 - <https://nsf.gov/awardsearch/>
 - Advanced search; use CC in title and limit to OAC as a start.
- The Quilt Resources
 - CC* and CICI PI Meeting Archive
 - <https://www.thequilt.net/public-event/archived-events-2010-2017/>
 - Includes Presentations, Quad Charts, VBCs and other materials from funded CC* grants
 - CC* Development Page (Quilt Members Only)
 - Includes Virtual Seminar recordings and presentations
 - <https://www.thequilt.net/member-area/nsf-cc-proposal-development-corner/>

