

# Preparing a NSF CC\*2020 Proposal Supplemental Document Preparation

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# Agenda

- CC\* Recap
- Supplemental Documents
- Q&A



## CC\* Recap



# CC2020 Program Areas

1. Data-Driven Networking Infrastructure for the Campus and Researcher awards will be supported at up to \$500,000 total for up to 2 years;
- 2. Regional Connectivity for Small Institutions of Higher Education awards will be supported at up to \$800,000 total for up to 2 years;**
3. Network Integration and Applied Innovation awards will be supported at up to \$1,000,000 [in some cases these awards are limited to \$500,000 total;



## CC2020 Program Areas

4. Campus Computing and the Computing Continuum awards will be supported at up to \$400,000 total for up to 2 years;

**5. Cyber Team-Research and Education CI-based Regional Facilitation awards will be supported at up to \$1,400,000 total for up to 3 years; and,**

**6. Planning Grants and CI-Research Alignment awards will be supported for up to \$250,000 total for up to two years, in some cases, these awards are limited to \$100,000.**



# Submitting a Proposal



# Submitting a Proposal – Background

- Webinar will focus on submitting through FastLane
- Other portals are available. Here is the list from the solicitation:
  - FastLane: NSF Proposal and Award Policies and Procedures Guide (PAPPG) guidelines apply. The complete text of the PAPPG is available electronically on the NSF website at:  
[https://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=pappg](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg).
  - Research.gov: NSF Proposal and Award Policies and Procedures Guide (PAPPG) guidelines apply. The complete text of the PAPPG is available electronically on the NSF website at:  
[https://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=pappg](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg).
  - Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov guidelines apply (Note: The NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at:  
[https://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=grantsgovguide](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide)



# Submitting a Proposal – Background

- Submission of a complete proposal is essential
  - Proposals will be returned without review if they are not complete.
  - List of the NORMAL required documents is provided with the submission portal.
  - Solicitation has a list of the additional SUPPLEMENTAL documents
    - MAKE SURE YOU PAY ATTENTION to this
- Mistakes on Required documents
  - May result in a return of the proposal without review
  - May result in a poorly reviewed proposal





# FastLane Portal

- Example Portal provided on the next slide
- Provides a list of the NORMAL required documents
  - Note that some are automatically generated
  - Webinar will not go over all of the documents
- Documents covered in this webinar:
  - PI, co-PI or Senior Personnel specific
    - Biographical Sketches
    - Current and Pending Support
    - Collaborators and Other Affiliations
  - Proposal Specific
    - Facilities, equipment and other
    - Data Management
    - Mentoring Plan
    - Other Supplementary Documents – Campus Cyberinfrastructure Plan



- Search -

<input type="button" value="GO"/>	Cover Sheet	10/29/15	<input type="button" value="GO"/>	Project Summary	01/17/13
<input type="button" value="GO"/>	Table of Contents	N/A	<input type="button" value="GO"/>	Project Description	09/22/15
<input type="button" value="GO"/>	References Cited		<input type="button" value="GO"/>	Biographical Sketches	
<input type="button" value="GO"/>	Budgets (Including Justification)		<input type="button" value="GO"/>	Current and Pending Support	11/03/05
<input type="button" value="GO"/>	Facilities, Equipment, and Other Resources				

#### Supplementary Documents

<input type="button" value="GO"/>	Data Management Plan	
<input type="button" value="GO"/>	Mentoring Plan <sup>1</sup>	
<input type="button" value="GO"/>	Project Summary with Special Characters	
<input type="button" value="GO"/>	Other Supplementary Docs	

#### Single Copy Documents

<input type="button" value="GO"/>	Collaborators and other Affiliations		<input type="button" value="GO"/>	Add/Delete Non Co-PI Senior Personnel	N/A
<input type="button" value="GO"/>	Deviation Authorization(if applicable)		<input type="button" value="GO"/>	Change PI	
<input type="button" value="GO"/>	List of Suggested Reviewers (optional)	N/A	<input type="button" value="GO"/>	Link Collaborative Proposals	
<input type="button" value="GO"/>	Additional Single Copy Documents		<input type="button" value="GO"/>	Performer/Awardee Organization Selection	N/A



# PI and Co-PI Specific Documents



## PI and co-PI Specific Documents

- Select your PI and co-PIs early in the proposal planning process
  - Make sure you note any solicitation specific restrictions associated with PI and co-PIs
  - Make sure your PI and co-PIs represent the nature of your proposal
    - PI – person who will be responsible for executing the project
    - Co-PI's – demonstrate the diversity of your project along with additional roles for responsibility and sustainability
    - Must be registered in the system (FastLane) you are using; if person is outside the organization, must be registered as well.
- Finalize these documents in parallel to writing the proposal



# PI and co-PI Specific Documents

- Specific Documents
  - Biographical Sketch
    - Also needed for all listed Senior Personnel
  - Current and Pending Support
  - Collaborations and other Affiliations
- When in doubt
  - Look at the guidance
    - [https://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=pappg](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg)
  - You can search for the specific document you are working on.



# Biographical Sketch

- Basically a resume but in the specific NSF format
- A separate biographical sketch pdf file, or other NSF-approved template, must be uploaded in FastLane for each individual designated as senior personnel.
- Specific components:
  - (a) Professional Preparation
  - (b) Appointments
  - (c) Products
  - (d) Synergistic Activities
- Don't leave this to the last minute; collecting the information can be difficult – particularly for senior personnel outside of your organization.
- This document can be prepared well in advance of any proposal submission and updated as needed.



## Example Synergistic Activities (Huntoon BioSketch)

TheQuilt - A consortium of regional aggregation points that collaborate on provide leading edge networking infrastructure and services primarily to the research and education community. The Quilt, Inc Board Member (2002 – Present), Executive Committee Member 2009 – 2013.

High Performance Networking and Computing Advisory Committees – Participation in community advisory committees providing ongoing advice on high performance networking infrastructure, technology and services for the research community.



## Current and Pending Support

- This section of the proposal calls for required information on all current and pending support for ongoing projects and proposals, **INCLUDING THIS PROJECT**, and any subsequent funding in the case of continuing grants.
- Sponsored Research Office should have a template for this information
  - Need one for each PI or co-PI on the grant
- Ensures that those funded by the grant are not over committed





## C& P Example

- List every project that receives external (NSF, NIH, etc) funding
- Example
  - For the WINS grant; none of my time was covered so “0” is put in for the person-months information.

Support:	<input checked="" type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title: <b>Women in IT Networking at SC (WINS)</b>				
Source of Support: National Science Foundation				
Total Award Amount: \$135,000		Total Award Period Covered: 06/01/2016-05/31/2019		
Location of Project: Colorado				
Person-Months Per Year Committed to the Project.	0	Cal: 0	Acad:	Sumr:

- Current proposal should be listed first on the form
  - Need to know the title of the proposal and the amount of time that the person (PI or co-PI) is covered under the funding
  - If you change the budget, make sure you update the C&P



## Collaborations and Affiliations

- NSF uses COA information during the merit review process to help manage reviewer selection.
- There is a specific template for you to use
  - <https://nsf.gov/bfa/dias/policy/coa.jsp>
- Fill it out for each PI and co-PI on the grant
  - Make sure to includes any personal conflicts including family members
- This form can be filled out well in advance of any proposal submission and then updated as needed.



# Proposal Specific Documents



# Required for All Proposals

- List of Required Documents
  - Facilities, equipment and other
  - Data Management
  - Mentoring Plan
- Supplementary Documents
  - Campus Cyberinfrastructure Plan (Campus CI Plan)
  - Letters of Commitment
- Discussion starts with the Campus CI Plan



# Campus CI Plan

- A coherent campus-wide strategy and approach to campus cyberinfrastructure
  - Required for every area EXCEPT for Area 6
  - Maximum 5-pgH supplementary document
  - Submitted under Supplementary Documents, Other Supplementary Docs
- Example Campus CI plans can be found at
  - <http://fasterdata.es.net/campus/planning>
- Proposals addressing a multi-institution or regional activity and approach to coordinated and integrated CI may submit a Campus CI plan representing the multi-institution group or region.



# Campus CI Plan

From the 2020 Solicitation:

All proposals submitted to the CC\* program, with the exception of area (6), must include a Campus CI plan within which the proposed CI improvements are conceived, designed, and implemented in the context of a coherent campus-wide strategy and approach to CI that is integrated horizontally intra- campus and vertically with regional and national CI investments and best practices. This Campus CI plan must be included as a Supplementary Document and is limited to no more than 5 pages.



# Campus CI Plan

- Addressed within the Campus CI plan the
  - Sustainability of the proposed work in terms of ongoing operational and engineering costs.
  - Describe campus IPv6 deployment
  - Should address the campus-wide approach to cybersecurity in the scientific research and education infrastructure, including the campus approach to data and privacy.
  - Campuses are encouraged to consider emerging best practices in network routing security for network operators as expressed in the Mutually Agreed Norms for Routing Security (see <https://www.manrs.org>).



# Campus CI Plan Guidance

- Addressed within the Campus CI plan the
  - The plan should include the campus status and plans with respect to federated identity and specifically InCommon, including: if the campus is registered with InCommon as supporting the Research and Scholarship (R&S) Entity Category to streamline integration with research applications (see <https://spaces.internet2.edu/display/InCFederation/Research+and+Scholarship+Category>); and if the campus meets the InCommon Baseline Expectations for Trust in Federation (see <https://www.internet2.edu/blogs/detail/17006>).





# Campus Cyberinfrastructure Plan

- For Multi-institutional Cyberinfrastructure Plan
  - Think of the requirements from a multi-institutional standpoint
  - It is okay if not every component is supported, but you should indicate that it is not and why (if possible)
- Examples:
  - IPv6
    - Indicate the practice for the regional network and then for the individual campuses. This could be done as a table.
    - Adoption will vary, so you can even indicate those that have not adopted it, but are planning to.
  - InCommon
    - Similar to IPv6 – use by organizations associated with the project
    - For a region, can look at InCommon adoption throughout the region as well if it relates to the scope of the project.



# Campus Cyberinfrastructure Plan

- Possible Outline
  - Introduction or Background
    - Vision and Strategies
    - Cyberinfrastructure Framework
  - Current Status of Cyberinfrastructure within the region and organizations
    - Network Infrastructure
    - Cybersecurity
    - Additional resources relevant to the project
  - Plans for the Future
  - Make sure you address any solicitation specific questions



# Campus Cyberinfrastructure Plan

- Address sustainability
  - In the Campus CI Plan, address the sustainability of the proposed infrastructure past the specific timeframe of the grant.
  - Indicate the commitment of the organizations that are participating in the project
    - Make sure letters of commitment back up your claims.



# Campus Cyberinfrastructure Plan

- Example Campus CI Plans
  - Look at those both for regional projects and individual campuses
  - Some may be old (since the solicitation has been around for a while) so be cautious when reviewing.
- Ask organizations for copies of their Campus CI Plan
  - Any of the more recently funded projects in the area where you are submitting
  - Often organizations are willing to share the documents with individuals even if they aren't up on the ESnet website



## Other Supplementary Documents



# General Guidance

- For each document, general guidance can be found in the PPAG under  
Special Information and Supplementary Documentation
- Make sure to read the guidelines
  - Your Office of Sponsored Research (if you have one) should be able to help you with this
  - But don't just trust what they do, make sure to read over the documents (if someone else prepares them) to ensure they are responsive to the solicitation



# Data Management Plan

- All proposals must include a data management plan (DMP);
  - NSF will not evaluate any proposal that is lacking a DMP.
  - No more than two pages and must be submitted as a supplementary document.
  - Does not count toward the 15-page limit (or any solicitation-specific page limits) specified for the Project Description.
  - Even if no research data are to be produced (e.g., the proposed activity entails conducting a workshop), a DMP is required. In such cases, the DMP is expected to discuss the management of the data that may be generated as part of the proposed activity (e.g., participant lists, exit surveys, community reports, etc.).
- CISE specific guidelines: [http://www.nsf.gov/cise/cise\\_dmp.jsp](http://www.nsf.gov/cise/cise_dmp.jsp)



# Data Management Plan

- CC\* Proposals – Example data
  - Network data collected as part of the Science DMZ, DTN, perfSONAR or other network equipment
  - Equipment configuration files including documentation, particularly if used as a template or leveraged for expanding the project
  - Agendas, slide presentations, etc. as part of workshops, conferences or training sessions funded under the project





# DMP Example for Network Performance Data

- Network Performance Data
  - Data collected as part of a perfSONAR mesh.
  - The perfSONAR data will be collected and archived based on input from the user community with a rotation schedule established to delete older, out of date, performance data. The data collected will not include any user specific data or secure information.
- Data Format
  - Data collected from this project will be in text format requiring no special tools to read, understand or use the data. There are no security or privacy concerns associated with this data.
- Access
  - All data from the project, both during and after the performance period for the project, will be publicly available through on a publicly accessible web page (give URL if it exists). The data will be backed up on a regular basis. The project documentation will be preserved indefinitely and the network performance data will be preserved based on the schedule developed by the user community.



# Letters

- Most areas have language about letters of commitment
- CC\* 2020 uses a range of wording to refer to letters:
  - Letter of collaboration
  - Letter of support
  - Letter of commitment
- Make sure to read the requirements and follow the guidelines for the specific area you are responding to
  - Don't (or try not to) reference collaborations that you don't specifically have a letter from the collaborator
  - Some areas REQUIRE explicit letters of commitment
  - Make sure to follow the language



## Letters - Example from Area 2

- All proposals in this area must document explicit partnerships or collaborations with the participating campus' IT/networking organizations, as well as one or more domain scientists, research groups, and educators in need of the new network capabilities.
- Partnership documentation from personnel not included in the proposal as PI, coPI, or Senior Personnel should be in the form of a **letter of collaboration** located in the Supplementary Documents section of the proposal.



# Letters Of Collaboration

- Use the format referred to in the PPAG
- Specific Guidance
  - Documentation of collaborative arrangements of significance to the proposal through letters of collaboration. (See Chapter II.C.2.d(iv)). Letters of collaboration should be limited to stating the intent to collaborate and should not contain endorsements or evaluation of the proposed project.



# Letters Of Collaboration – Recommended Language

The recommended format for letters of collaboration is as follows:

"If the proposal submitted by Dr. [insert the full name of the Principal Investigator] entitled [insert the proposal title] is selected for funding by NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment and Other Resources section of the proposal."



# Facilities, Equipment and Other

- A required document
- Should list collaborators that are not listed as PI, co-PI or Senior Personnel (more on this later)
- Don't repeat information that is already in other portions of the proposal
  - Can repeat phrases to link or connect to prior ideas or provide justification, but should be new information
- Can use to relevant information that is too long or detailed for the actual project description
  - Do not use it as a way to go past the 15 page limit for the project description.
  - If it is needed to justify your project, it should go in the project description itself.



## Facilities, Equipment & Other - from PPAG

- This section of the proposal is used to assess the **adequacy of the resources** available to perform the effort proposed to satisfy both the Intellectual Merit and Broader Impacts review criteria.
- Proposers should describe **ONLY** those resources that are directly applicable.

This is where to put a general description of your environment (infrastructure, organization, etc) that is not already included in either the Project Description or the Campus CI Plan.

Only describe the resources that are relevant to the project.



## Facilities, Equipment & Other - from PPAG

- Proposers should include an **aggregated description** of the internal and external resources (both physical and personnel) that the **organization and its collaborators** will provide to the project, should it be funded. Such information must be provided in this section, in lieu of other parts of the proposal (e.g., Budget Justification, Project Description).

For a regional proposal should include information for all organizations associated with the proposal.

Try to find a way to cleanly organize the information particularly if it is for a broad set of organizations.





## General Guidance - Facilities, Equipment & Other

- The description should be **narrative** in nature and must not include any quantifiable financial information.
- Reviewers will evaluate the information during the merit review process and the cognizant NSF Program Officer will review it for programmatic and technical sufficiency.

Do not do a list (narrative is the important word here).

Make sure it is readable.



## General Guidance - Facilities, Equipment & Other

- Unfunded collaborations – specific guidelines:
  - Any substantial collaboration with individuals not included in the budget should be described in the Facilities, Equipment and Other Resources section of the proposal (see Chapter II.C.2.i) and
  - Documented in a letter of collaboration from each collaborator. Such letters should be provided in the **supplementary documentation** section of the FastLane Proposal Preparation Module and follow the format instructions specified in Chapter II.C.2.j
- This guide line covers any of the collaborators that are not listed as PI, co-PI or directly as senior personnel in the proposal (and budget).



## General Guidance - Facilities, Equipment & Other

- List the letters of collaboration

You need to list anyone that has provided a letter of collaboration and their role in the project if they are not already listed as a PI, co-PI or Senior Personnel.

I typically do this at the beginning of the Facilities, Equipment & Other section.

I also check to make sure I only list those that have actually provided a Letter of Collaboration.



# Final Advice



# Best Practices

- Do not expect to get all the documents together on the last day
  - If this is the first proposal you have submitted, plan to have all the documents completed at least a week in advance (January 14)
  - Review all of the documents before you upload them
  - Make sure all the documents are consistent
    - If you change the budget, make sure the C&P is still correct
    - If you don't get a specific Letter of Collaboration, make sure that is reflected appropriately in both the Project Description and the Facilities document



# Best Practices

- You can review the entire package once it has been uploaded
  - You may be tired of looking at it at this point, but this is what the program officer and reviewers will see, so make sure to review it AND make any necessary corrections
  - Make sure it is readable, especially the diagrams
    - Make sure the text in the diagrams is legible
- Don't kill yourself over small issues
  - You can always make it better – focus on making sure it is responsive with ALL the supporting documents submitted
    - If a document is missing the proposal may get returned without being reviewed.



# Resources

- NSF Proposal Preparation Instructions
  - [https://www.nsf.gov/pubs/policydocs/pappg19\\_1/pappg\\_2.jsp#IIC2j](https://www.nsf.gov/pubs/policydocs/pappg19_1/pappg_2.jsp#IIC2j)
- TechEx Presentations
  - Session “Scientific Computing in the Cloud”
  - Includes presentations by Kevin Thompson and Nili Tannenbaum on the CC
  - <https://meetings.internet2.edu/2019-technology-exchange/detail/10005494/>



# Questions ?

