

# Building your own System-to-System interface



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# S2S - Buy vs. Build

## Considerations

- Do you need a formal Requirements Spec, Functional Spec or Needs Assessment document?
- Do you currently have a grant management system in place?
  - If so, how much of the SF424 data does your current system capture?
- Does your institution have unique needs and requirements?

# S2S - Buy vs. Build

## Considerations (cont)

- What kind of Operating Systems do you need to support?
- Do you have a support model in place which provides after-hours support?
- Will you need to purchase hardware?
- Will it be Web-based or Client/Server?
- What software tools will you use?

# S2S - Buy vs. Build

## Considerations (cont)

- Does your IT Staff have expertise in the use of the chosen tools?
- Do you have clearly identified stakeholders?
- How much buy-in do you have from them?
- How much of a time commitment are you asking your Pre-Award staff to make?
- When do you need it? Can your IT staff deliver in that time frame?

# Building your own S2S Interface

## Benefits

- Tailor it to your business processes to better meet your institutions needs
- Set your own priorities and control when enhancements are implemented
- Easier integration with institutional systems
- Control the costs of what you build; are not paying for features you don't need
- Can start out small and build on over time
- Development staff on-hand when something goes wrong

# Building your own S2S Interface

## Hidden Costs

- Training costs for your development staff
- Support staff must be available 24/7
- Initial hardware and software costs for production and test environments
- Additional costs for mirrored environments
- Hardware and software upgrades (cost of purchasing, staff needed to install and test)
- On-going analysis and developments costs

# Building your own S2S Interface

## Disadvantages

- Not a simple task, no clear development path
- Major commitment of technical resources and staff with the necessary business expertise
- More difficult to manage User expectations
- Institution accountable when things go wrong
- Development schedule is subject to change due to circumstances beyond your control (new forms, changes to business rules, etc)

# **Building your own S2S Interface**

**Key Components – should provide a way to:**

- Validate the data that will be sent
- Print Preview what will be submitted
- Generate xml using the provided schema
- Submit using Grants.gov's Web Services
- Track status once it reaches Grants.gov
- Access Grants.gov's other Web Services

**What about the data?**

- Data capture may not be a part of your S2S

# Useful Resources

## Grants.gov

- Applicant System-to-System (Development Process, Testing and Web Services links)

[http://www.grants.gov/applicant\\_s2s/applicant\\_system\\_to\\_system.jsp](http://www.grants.gov/applicant_s2s/applicant_system_to_system.jsp)

- AT07 test environment

<http://at07web.grants.gov/>

- S2S listserv

Email - [GRANTSGOVS2S-L@LIST.NIIH.GOV](mailto:GRANTSGOVS2S-L@LIST.NIIH.GOV)

To subscribe: <https://list.nih.gov/cgi-bin/wa.exe?A0=GRANTSGOVS2S-L>

# Useful Resources

## National Institutes of Health

- System-to-System (Testing Environment, Validations and Test Opportunities links)  
<http://era.nih.gov/ElectronicReceipt/system.htm>
- SF424 Application Guide and Validations document  
[http://grants.nih.gov/grants/funding/424/SF424\\_RR\\_Guide\\_General\\_Adobe\\_VerB.pdf](http://grants.nih.gov/grants/funding/424/SF424_RR_Guide_General_Adobe_VerB.pdf)  
[http://grants.nih.gov/grants/ElectronicReceipt/files/SF424RR\\_Validation.pdf](http://grants.nih.gov/grants/ElectronicReceipt/files/SF424RR_Validation.pdf)
- NIH Stage Test Environment  
<https://commons.uat.era.nih.gov/commons/>
- NIH S2S Listserv  
Email - [NIH\\_ESUB\\_SYS2SYS-L@LIST.NIH.GOV](mailto:NIH_ESUB_SYS2SYS-L@LIST.NIH.GOV)  
To subscribe: [https://list.nih.gov/cgi-bin/wa.exe?SUBED1=NIH\\_ESUB\\_SYS2SYS-L&A=1](https://list.nih.gov/cgi-bin/wa.exe?SUBED1=NIH_ESUB_SYS2SYS-L&A=1)
- NIH S2S Help Desk ([B2BSupport@mail.nih.gov](mailto:B2BSupport@mail.nih.gov))

# Useful Resources

## National Science Foundation

- NSF's Grants.gov Application Guide  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=grantsgovguide](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide)
- For information on the NSF System-to-System test environment, send mail to:  
[feedback@research.gov](mailto:feedback@research.gov)

## S2S Service Providers (from NIH Web Site)

- For a list of service providers and their contact information, go to:  
<http://grants.nih.gov/grants/ElectronicReceipt/sp.htm>

# Useful Resources

## Institutions that built their own and contacts

- Debbi Nixon, Duke University  
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