Applicant System to System Workshop
March 31, 2005
9:00 am -5:00 pm

Workshop Day 1: March 31, 2005

Introduction: Peter Brunner, Grants.gov Program Advisor began Workshop Day 1 at 9:00am with introductory comments. He then introduced Ms. Rebecca Spitzgo, Grants.gov Program Manager to provide the project overview.

Project Overview: Rebecca Spitzgo, Grants.gov Program Manager

Ms. Spitzgo began the project overview by mentioning her recent visit to Houston, TX where Grants.gov was selected as a best practice partner, one of five, for a benchmarking study by APQC identify best practices, discover effective methods of improvement, and broadly disseminate findings. Others selected for the benchmarking study included AMEX, FedEx and IBM, to name a few. As Grants.gov moves forward and the Applicant System to System (S2S) Interface is launched, instead of having the perception of institutionalizing Grants.gov, it should be considered as a transformation, which is a better reflection for the customer facing piecing.

Originally, Grants.gov became mandate of the President's Management Agenda (PMA) and Public Law (PL) 106/107 which was tasked to create a Find/Apply portal as well as improve access across the 26 Federal grant-making agencies. Now, Grants.gov is recognizing nine federally funded commissions as part of the Program. Grants.gov is managed by the Department of Health and Human Services which is the largest grant-making agency, but Grants.gov is funded by all 26 agencies.

The former grants environment was stovepiped with a "many-to-many" model across multiple disparate systems. But now, Grants.gov acts as a trusted broker for both applicants and agencies by centralizing access to grant information and applications.

There have been several attempts to begin the planning phases of the Applicant S2S Interface. Finally in March 2004, Grants.gov hosted the initial meeting to elicit feedback and confirmation that developing the system was doable. Since then, it has been a cooperative effort amongst the supporting agencies and institutions involved in developing the system. Grants.gov faces the challenge of supporting the diverse grant community which includes the small/novice applicant to the large/sophisticated applicant. Luckily, usage of the PureEdge form seems to be working well. As of now, there are 15 agencies pulling data from the agency S2S Interface, in which the infrastructure is modeled like that of the Applicant S2S system.

As shown on slide six of the presentation, Grants.gov has experienced significant growth since one year ago to March 2004 when the initial Applicant S2S meeting was held. Since yesterday, over 600 grant application packages have been posted from 20 of the 26 Federal grant-making agencies. Grants.gov is working closely with the remaining six agencies with the expectation of having them on board by the end of this summer. The Office of Management and Budget (OMB) recently mandated that agencies are required to post 25% grant application packages to Grants.gov for Fiscal Year 2005. As a government, the 25% goal has almost been achieved. Grants.gov expects by the end of 2005 to have approximately 35-40% usage.

To date, 2,376 grant application packages have been received with the Department of Education (DoEd) contributing significantly in achieving such high numbers. The initial 1,000 grant applications received took 11 months, the 2nd thousand about seven months which is a sign that the message is resonating within the grant community that Grants.gov is the place to Find and Apply for all Federal grants. The Applicant S2S Interface opens door for more growth and will hopefully drive efforts to streamline the grant application process.

The number of Registered User continues to ramp-up. Recently, Grants.gov received approximately 300 grant applications from 225 different users which shows that all populations are being represented. It also helps Grants.gov identify segments of the population that are not represented and where efforts need to be re-shifted.

Grants.gov's Find functionality has been up and running over one and a half years with over one million grant notification emails distributed last week, setting a new record. It was originally expected to level off around 500-600 thousand grant notification emails. Just recently, the Department of Housing and Urban Development (HUD) released SuperNofa which helped increase the Find numbers. Almost all of HUD's programs are posted on Grants.gov with the majority requiring electronic submission.

Cross agency datasets are being developed across market segments because a single data set is not feasible. The Core SF 424 is currently available. In November 2004, the Research & Related (R&R) dataset was released followed by the National Science Foundation dataset in January 2005. The National Institutes of Health (NIH) is expected to release their forms in April. Grants.gov is strongly encouraging an agency specific set of forms. The Mandatory dataset which is targeted towards Mandatory and Formula awards was deployed February 2005. The SF 424 short, which is a condensed version of the standard SF 424, is expected to deploy in May 2005. The SF 424 Individual is also expected to deploy in May 2005.

Grants.gov hopes to continue standardizing data across the government as well as create a government-wide data dictionary. At last week's Federal Demonstration Partnership (FDP) meeting, several end-to-end streamlining ideas were discussed such as providing grant award notices and progress and financial reporting. XML provides the opportunity towards the efforts of streamlining but does not necessarily mean Grants.gov is able to fulfill these efforts.

Grants.gov continues to evolve with more enhancements expected within the next year. The Find and Apply functionalities will merge this summer, eliminating www.FedGrants.gov which has caused confusion. Grants.gov also plans to expand the e-authentication functionality which is part of the e-government initiative. The PureEdge forms will soon allow importing/exporting data which will pull data from existing forms. This is expected to roll-out in July. Grants.gov also expects to provide a reporting mechanism for the grant community so that Federal grant funding can be tracked.

After providing the program overview, Ms. Spitzgo and Mr. Brunner recognized those from the grant community that are helping Grants.gov to shape the Applicant S2S Interface. These members include; Massachusetts Institute of Technology (MIT), the University of Minnesota, University of Texas (Austin), University of Texas Southwestern Medical Center, the State of MD (who represents a broader community of states), Cayuse Software and ERA software. Mr. Brunner formally recognized MIT in developing their S2S interface.

Update on the Applicant System to System Interface: Peter Brunner, Grants.gov Program Advisor

Peter Brunner then provided the Applicant S2S update with the following agenda:
- Project Update
  - Origins and scope of the project
  - What we hope to accomplish with the project
  - Project status
  - Implications
  - Challenges and opportunities
- Technical overview by the System's Integration Team
  - Introduction
  - Schemas
  - Web services interface
  - Security model
  - Test plan
  - Back end processing
- MIT's experience
- Change management Issues
- System demonstration: MIT and Grants.gov

The Applicant S2S project was originally encouraged by the FDP with the initial workshop in March 2004. At this workshop, Grants.gov solicited requirements input from the grant community, determined the feasibility of an S2S interface and discussed readiness of the grant community. After the workshop, the following conclusions were made:
- The Applicant S2S interface is doable and there is high interest in the applicant organization community to link to Grants.gov to apply.

- Applicant organization systems are adaptable. The large investments can be justified by
    - Targeting schemas with high expected usage
    - Agency willingness to limit collection of agency specific data
        - Department of Energy is the first to publish a grant application package using the R&R dataset
    - Establishing data set/forms change management processes to schedule changes predictably

The interface must provide adequate security, adhere to technical industry standards, limit the collection of varying agency specific data, standardize and freeze data submission requirements, manage schema and provide adequate system capacity.

Project expectations and benefits include:
- Allowing applicant organizations to submit electronic grant applications via an XML file instead of PureEdge
- Eliminate the need to re-enter data into the applicant organization's back office grant system
- Support integration with applicant organization back office grant management systems
- Decentralize user verification requirements and delegate to the applicant organization
- Promote usage of the R&R forms set

The S2S interface is intended for universities, state single point of contact operations, other organizations wanting to establish tighter control over the application submission process and third party vendors providing grant management systems to organizations.

Thus far, the applicant S2S specification document has been developed as well as the initial applicant reference implementation (RI). The preliminary project concept has been confirmed with MIT to ensure the process is moving in the right direction. MIT COEUS has also test phase I of the web services in December 2004. It was determined in January 2005 that the project was ready for expansion to include those formerly recognized for their efforts. InFlow Suite, the backend process for Grants.gov, was released to the pilot participants for testing on March 28th followed by today's workshop with expected project roll-out to being in April.

The SI has developed, completed and made available the following products:
- Applicant Reference Implementation and Installation Guide
- Applicant Web Services Integration
- Applicant Web Services Security
- Applicant Services Integration Test Plan
- Web Services Definition Language (WSDL)
- Opportunity Schema

- Data Attribute Templates (DATs) for the R&R to ensure the outputs by the applicant organizations match the forms. As new forms are published, the DATs will be finalized and made available on Grants.gov.

The project is technologically agnostic and open-specifications driven, using W3C standards and delegating responsibility to the applicant system to verify Applicant Organizational Representative (AOR) authority to submit applications. SSL and mutual certificate based authentication are used for security. Grants.gov is also helping to control the proliferation of XML schemas and agency specific forms as well as implementing effective change management processes. An applicant RI has also been provided. The applicant RI provides a fully functional prototype of the applicant S2S web services interface but does not provide the software to populate the Grants.gov application XML, verification of the AOR authority to submit or the turn-key software.

Each opportunity is defined by an opportunity schema which defines the required and optional form schemas. The form schemas are included by reference in the opportunity schema which is the basis for construction of a grant application XML file. All schemas are published and are made available for download from the Grants.gov site. Then they are stored in the organization's environment. All applicant transmissions must be validated prior to submission.

The Applicant S2S interface outsources some activities currently performed by Grants.gov including:
- Validation of AOR
- Editing now done in PureEdge forms
- Submission of XML file for transmittal to agency

But to leverage the investments, applicant organizations need stable, streamlined and consolidated datasets/forms from the agencies in order to sync the OMB forms clearance process with forms development. Grants.gov recognizes that new datasets/forms require a systems change for the applicant organization to continue to use the Applicant S2S interface. Agencies also need to understand the latent demand for rapid adoption of the R&R dataset. With the widespread adoption from both the agencies and applicant organizations of the S2S interface, Grants.gov is becoming a crossroad between these two environments, creating opportunities for greater exchange of information but also imposes significant coordinative challenges.

Grants.gov faces challenges and opportunities as the Applicant S2S Interface rolls out:
- Encouraging agency adoption of the R&R forms set
- Adopting effective change management processes
- Identifying the requirements of state grant offices
- Developing a model for providing technical assistance with limited resources
- Identifying viable system validation models
- Planning requirements changes in the context of extended development lead times
- Promoting strict adherence to technical standards by agencies and applicant organizations

- Exploring the need for user groups and how to form them
- Planning capacity for rapid growth

Grants.gov expects to received 15,000-16,000 electronic application submissions by June 30,2005 based on application packages currently available and OMB's passback language. In the future, the total application pool may be as high as 250,000-300,000. Some issues to consider regarding capacity planning:

- How many applicant organizations will likely be using the Applicant S2S Interface?
- Are there any early guesstimates of the number of annual electronic submissions? Estimated average file sizes?
- Will applicant organizations batch submissions resulting in peak loads?
- Should transmission scheduling be considered?

Questions and Open Discussion

Q: on scope, now it's R&R focues but demand is ther for SF 424 piece, when will this coming about for agency planning purposes?
A: no dates for SF 424 and won't have until V2 Sf 424 - interest will probably manifest in fall – but have to look at states who will be using the 424 and mandatory (greater interste than at university

Q: what about biz process? How will opp instruction be conveyed to applicant at institutaion level?
A: current get opp does offer instructions to provide to applicant. This will be demo tomorrow. When dl, get URL to schema and instruction so clickable and viewable. Important for agencies for agency specific biz. For MIT, element will be used for something else for agency specific b/c some don't need all fields to bypass OMB clearance. Keep in mind can't use OMB cleared form to collect info if it wasn't intended for that purpose.

Q: is there way for R&R can be imported to PE as validation mechanism? Or can export out of PE to R&R?
A: with import/export feature, investigating idea. It's not easy to populate PE with schema. It's not a 1-to-1 correspondence in reality. But can add data analysis template. Documentation for forms is avail but struggling with managing. Have limited technical assistance

Q: in looking at practical application, as program mgr sees need/opp for small change, if app org has develop way to validate submission that doesn't include biz rule for this, has there been instance
A: have not been seen yet

LUNCH

Technical Overview

Mike Attassi, Project Manager of the SI team provided the introduction and team introductions. The technical overview agenda is as follows:

- Applicant web services interface and technologies
- Grants.gov and XML
- The Grants.gov XML resource directory (RDDL)
- Applicant web services security
- Applicant web services test plan demonstration

<u>Overview of Web Services Interface</u> - Brian Husted, SI Team, Northrop Grumman

The Web Services Interface provides access through web services to get to the opportunity schema and instructions, electronic grant submission, validation and applicant status tracking, to name a few. It does not however, provide AOR authority to submit by an individual but a user can be authorized by the system for an individual applicant to submit, software to populate the grant application XML, agency specific validation or web services to directly communicate with backend agencies.

Supported standard specifications include:
- W3C
- Microsoft
- OASIS

Available opportunities can be found on Grants.gov "Find" as well as the GetOpportunityList Web Service which is a way to identify opportunities to apply to on Grants.gov. Through this web service, the applicant received the opportunity schema and its instructions as a URL.

The SubmitApplication web service is a way to send proposals to Grants.gov via SOAP message packaging. The grant application is packaged and pushed immediately to Grants.gov and is immediately received. However, only one application may be submitted per request. SOAP attachment encapsulation can be done via SOAP with Attachments (SwA) is based on MIME and maintained by W3C open standards body or DIME which is the preferred method for large attachments. Both MIME and DIME are supported by Grants.gov.

Once the forms and its attachments have been validated, validation errors can be retrieved via the GetApplicationStatusDetail Web Service. The application can be resubmitted to Grants.gov, however, it will not be associated with the initial application submission. The GetApplicationList web service is used for application status tracking from when the application is received by the agency. Agencies can also assign their own internal tracking numbers; this function is optional.

For grant application submission, some agencies allow both paper and electronic submission. However, it would be beneficial to have agencies allow submission in only one way. HUD requires a waiver to be submitted if the applicant is not able to submit

their grant application package electronically. It is important for agencies to learn what they can do to reduce the burden for electronic submission. This is an educational process. Regarding multiple submissions, HUD has business rule that the last submission before closing date and time is the authoritative copy. For NIH, simply log in to the Commons with a different set of credentials to monitor the application through the Commons and determine the status of applications.

The Grants.gov submission lifecycle lasts for 180 days. After that period, the grant application package is purged. When a grant application is initially received, the application is processed. If it passes validation, the application is then received by the agency who assigns an agency tracking number. After 180 days, it is purged. If an application fails validation, the application is rejected and purged after 180 days.

With current web services technologies, Grants.gov is able to take WSDL and point WSDL to Java and a generated proxy level. It was not necessary to write code because WSDL is supported by multiple technologies. With reusable Java technologies such as Apache SOAP Monitor Applet, Grants.gov is able to monitor SOAP messages use for debugging.   Java API's from Reference Implementation are also reusable such as XML validation API to hash within implementation documentation.

Grants.gov XML - David Wong, SI Team, Northrop Grumman

Overview
- Grants.gov schemas
- Schema namespaces
- Canonicalization of XML
- XML cataloging

There are three types Grants.gov schemas.
- System schemas which are more general and usually reused.
- Form schemas which are specific to a particular form.
- Opportunity schemas which are groupings of system schemas and forms to create a grant application package.

There are five types of system schemas.
- Global schemas are general reusable types.
- Header schemas hold onto grants submission element and identifies the agency, applicant and grant opportunity. Note the opportunity ID (the only mandatory field), CFDA #, and competition ID. The applicant must include one or both of these in addition to opportunity ID.
- Attachment schemas define what the XML structure will look like. It holds information about attachments submitted with a grant application such as file name, content type (MIME/DIME), content ID. This must match the content ID in the SOAP attachment. Otherwise, it will be rejected.
- Global library schemas are similar to the global schema but more complex types are used here such as humannamedata type. It contains commonly used XML structures.

- Universal code schemas are static constants such as state or country so that information that is collected is standardized.

Each grant application form within an opportunity has its own form schema. This can be agency specific. If it is not, which is preferred, form schemas can be used across agencies to be able to get more use out of them instead of building new forms because it can be time consuming. Grants.gov is aiming to have a standard nomenclature.

Opportunity schemas define what forms will roll into a grant opportunity. Each agency makes their decision but the header is always mandatory. Agencies can then decide what other forms are required which are built by a series of import statements referencing other schemas. This does not define individual scenarios. When building schemas, information is imported and built upon each other. This is how Grants.gov has built schemas in order to be able to reuse and standardize information. So Grants.gov recommends using the same namespace prefix being declared in the Grants.gov schemas to promote consistency and avoid confusion.

Schema location reference does not need to be in the application XML. If the schema location exists, they must refer to the submitted server and all schemas. DocType declarations are not allowed.

Canonicalizing XML means to format an XML document according to published specifications given by W3C to give the same lexical structure to the XML document that are logically equivalent to produce files that are always consistent value (bit-wise equal). If you use two different namespaces, even if it is canonicalized or hashed, the values will be different. If anything changes in proposal after calculate hash value, this value must be recalculated.

There are several canonical forms an XML document may adhere to. Only hashing a portion of the XML tree so should be only canonicalized a certain portion. The canonical form to use is the "Exclusive XML Canonicalation" which excludes namespaces and protects from parent namespaces that might change from hash value. Only hash grants from the subnode.

XML cataloging is a tool to map public and/or system identifiers to an alternate URI. This follows the Oasis XML catalog standard and is the published schema the applicant should follow. Before submitting, the applicant must validate to XML so that the cataloging process is expedited and maps to remote resources. There are several applications but Grants.gov uses Apache Resolver. It is a simple solution with many benefits. An example of a catalog configuration would be to map to an alternate URI but the URI must be valid.

Web Services Security - Mark Sommers, SI Team, Northrop Grumman

Overview
- Web Services Security Model

- What is required of you?
- How do you sign up?

The Web Services Security Model components include SSL, mutual certificate based authentication and one-way hashing. The Mutual Authentication Grants.gov SOAP server handles all requests and the Applicant SOAP server handles the keystore which is like a password protected archive. The truststore is similar to a password protected zip file such as Verisign and entrust.

- The HHTPS request is made by the SOAP requirement and sent over a 446 port. It is important to work with the network administrator to ensure the port is open because there could be firewalls.
- Once received, the Grants.gov SOAP servers send requests back for authentication.
- The applicant public certification is sent back to the Grants.gov server.
- Grants.gov ensures the certificate is signed.
- The Grants.gov public certificate is then retrieved by Entrust.
- Grants.gov sends the public certificate to the SOAP client to authenticate and matches the original request URL.
- SOAP is then sent securely over SSL and the response is sent back.

This process happens each time a request is made over the Grants.gov server.

For one-way hashing, it is difficult to recreate data used to calculate the hash value based on the hash value alone. Grants.gov will take XML and the attachments hash value and validate. XML uses Apache XML security.

What is required of you? Before buying a certificate, the user must test with the keystore provided by RI. This allows authentication to the acceptance test site and access to the production site. The RI Keystore also allows the user to execute all web services, debug the keystore and truststore configuration. You are able to use the same model with agency configuration. You can also verify connectivity to Grants.gov.

Certificate requirements are contained within the web services security document. For the full domestic strength server certificate to be compatible with Grants.gov and the RSA algorithm, the key length must be 1024 pr 2048 bit. We recommend using http://www.BouncyCastle.org. The serial number must have a minimum of 8 hex characters. The extracted serial number will be used as the applicant number and is signed by a recognized certificate authority (CA) who will usually set up serial number for you. Grants.gov will work with you to retain your root CA.

Truststore requirements must contain entrusted root certificates within the truststore. Grants.gov can provide a truststore with RI.

Hashing requirements are documented in the Applicant S2S SI document. The process for grant application XML involves canonicalizing the XML form to ensure hash calculation, securing the hash algorithm (SHA-1), ensuring the grant application XML is

Base64 encoded and inserting it into header XML. The hashing process is similar for attachments.

How do you sign up? The applicant must provide the Grants.gov SI team the following information to sign up for the Applicant S2S registration process.
- A copy of the signed public certificate in order to obtain a serial number and determine which CA has signed up for support
- The organization's DUNS number that certifies who you are associated with
- An email address for system notifications; Application received, validation, received by agency emails, etc.
- The AOR's name to be inserted in Grants.gov's XML applicant signature block

SI will then create an account and your E-biz POC must sign-in to authenticate. The E-biz POC allows authorized people to submit applications. This is only needed in production.

The Applicant S2S test plan is intended to build confidence, troubleshoot, ensure application compliance and clarify expectations.

Are you ready? Some preliminary steps to take to determine whether or not if you're ready include:
- Reviewing the applicant integration documents
- Installing and testing with the RI
- Building your SOAP client
- Testing against the RI
- Verifying connectivity to the AT Server
- Obtaining a CA signed certificate

In order to being the testing process:
- Schedule a kick-off teleconference with the Grants.gov SI team
  - POC – Peter.Brunner@hhs.gov
- Provide the SI team with certificate registration information
- Execute test cases
- Document results and provide them to the SI team

If there are no problems, the applicant organization is then able to migrate to the Production environment.

Grants.gov Submission Processing – Court Zabel, SI Team, Northrop Grumman

Grants.gov submission processing aka InflowSuite is an e-filing submission framework that ties together all submissions, validation and workflow steps that each grant application goes through.

The backend process of Grants.gov forms development begins with requirements and the DAT files which are sent to the Forms Factory so that the forms (schemas, PureEdge

form and formatting objects) and data types can be developed. Once developed and approved, they are published and made available on Grants.gov.

All schema is validatable to the MetaGrantApplication Resource Directory Description Language (RDDL) which is a directory of information on all Grants.gov XML namespaces and types.

When an agency begins the process of publishing an opportunity, the agency user selects the mandatory and optional forms. Then the agency user specifies the parameters of the opportunity. All published opportunities on Grants.gov have an opportunity ID, CFDA number and competition ID. Each new opportunity's PureEdge package is generated and made available on apply. The URLS are mostly standard. Grants.gov will provide the schema at a similar URL but it is also available on the GetOpportunity document. Once the agency has the XML extraction attachments and they have been validated, the grant application will go through acceptance steps. All opportunities are then packaged and combined with the XML documents and are ready for downloading.

Validation ensures the structure of each submission is acceptable and goes through the following steps:
1. Structural validation
2. Virus scanning
3. Data hash comparison
4. Meta-schema validation

Once a grant application goes through each of the validation steps, the resulting status is "Received". The XML is then ready for consumption by the agencies and now includes footer receipt information such as receipt date and time. The grant application must then go through acceptance validation steps;
- DUNS validation
- Submitter authorization
- Opportunity existence
- Opportunity openness
- Opportunity schema validation

The resulting status is then "Processing". The submission data is then packaged for agency users to download with a resulting status of "Validated".

On the agency side, the packaged application is downloaded (status: "Received by Agency"). The agency then has the option of assigning its own tracking number (status: Agency Tracking Number Assigned").

MIT – Sabari Nair & Steve Dowdy

MIT's experience with the S2S system has provided challenges as well as opportunities. Initial challenges included understanding the technology and Grants Application Meta Schema and the ability to generate XML representation of a grant application. MIT's

implementation process began with deploying the S2S RI server and RI client. Then, a connection between the S2S client and Grants.gov test server was established. At first, the RI client/server seemed confusing, but after downloading, the process became clear.

Existing challenges for MIT include validation using the JAXB classes and getting the right version of the Xalan.jar file into the classpath which has now been solved on the test server but MIT is not sure if this is the right solution.

MIT has had several concerns regarding version management such as the lead time before a new forms version goes to production and schema design such as the arbitrary maximum occurrences of repeating elements.

MIT is currently working to set up CA signed certificates, DIME, schema cataloging and printing based on Grants.gov schema using style sheets created by Grants.gov.

MIT has demonstrated that Applicant S2S is feasible. The challenge now for Grants.gov is to encourage growth and transformation. Grants.gov will make their best efforts to make improvements for the larger community.

Workshop Day 2: Friday, April 1

Change Management Issues - Mary Rexford, Grants.gov Management Consultant

Mary Rexford began the presentation with the following goal, to create a stable processing environment, promote usage, and produce cost savings instead of reacting to changes. Change Management Issues include managing the change approval process and managing the deployment of change. Today Grants.gov is specifically interested in knowing what type of information the applicant organizations need and when, as well as the best channel of communication.

The current change management structure involves the Internal Control Board (ICB) within Grants.gov's Program Management Office, with a focus on agency form-specific and operational requirements. The expansion of this process will be to develop an Agency User Group and Applicant User Group to review and prioritize system change and enhancement requests. Change requests can come through different sources; however, every change incurs costs so there need to be prioritizations and decision process.

The participants were asked their opinion on the usefulness of formalized user groups. Overall the participants agreed that forming a Grants.gov applicant user group would be beneficial and cited existing groups to consider having meetings coincide with. Examples: NIH Commons User Group with FDP; MIT has COEUS user groups and licensed users. This is an annual and informal use of the community with established mailing lists. Within the State of Maryland, the State Point of Contact (SPOC) is involved in the applicant process as well as the user group.

Discussion then focused on managing the deployment of change. In October 2003, Grants.gov's Apply functionality was deployed along with the core SF 424. Grants.gov committed at that time to not change the global schema or form for one year in order to provide a stable processing environment for the applicant and agency systems. At the end of the one-year time frame, the SF-424 core data set was reevaluated for usability improvements and changes to the core form were identified. To support the changes to the form, schema changes will be made. This is the first time the schema has been changed since the rollout of the APPLY functionality and Grants.gov does not expect further changes to the core form or schema for at least three years.

In advance of the release of the new schema, Grants.gov will communicate its strategy for replacing version one of the SF 424 core form and schema with version two. There will be a period that both versions of the schema and form will co-exist in support of program opportunities that have not closed and application in process.

The revised schema is to be released in October 2005 with three to six months expected for applicant and agency organizations to react to that change. The participants were asked if this was sufficient lead-time to incorporate schema changes and the type of information they would need. Participants stated that three to six months is sufficient if you have the right resources and skill sets are in place. However, if you are in maintenance with no development team in place, then there is not enough time. The key is to communicate when changes are likely to be released (at least 2-3 months in advance) to enable the organizations to plan and staff for implementing the changes. Version control and the timing of deployment are important because the states need official notification due to the filtering of information to state agencies on implementation.

Grants.gov stated that the implementation guide will be updated for the rollout. It will continue to be available as a resource but there will not be continuous updates. On the agency side, the reference guide has remained the same for one year.

MIT and Grants.gov then conducted live test demonstrations of the Applicant S2S Interface.

Peter Brunner closed the workshop at 12:00pm.