AFAMS – Air Force Agency for Modeling and Simulation

The Challenge
The Air Force created the Air Force Agency for Modeling and Simulation (AFAMS) as a new field-operating agency in June 1996 to coordinate its growing requirement for modeling and simulation. The agency's mission is to support implementation and use of the Joint Synthetic Battlespace by: implementing AF/DoD M&S policy and standards; managing, coordinating, and integrating major AF M&S programs and initiatives; supporting corporate Air Force M&S operations; and promoting and supporting technology improvements. In order to complete the mission at task, AFAMS needed a way to provide its worldwide community access to current M&S developments, technologies, standards, programs and initiatives.

The Approach
To create worldwide access capabilities for the Air Force, the Information Technology Service Center (ITSC) created and maintains the AFAMS website (http://www.afams.af.mil). The site enables on-line communication for the Air Force modeling and simulation community. The site utilizes communication tools that are tailored to meet the special needs of maintaining and documenting the technological advancements of the community. Some of the tools being used to facilitate efficient communication are:

- **Reflectors** - The AFAMS reflector area enables users to join established reflectors (groups) and share information in an efficient manner. Users exchange messages with all current subscribers of a reflector without having to address the messages directly. All reflector traffic is archived and made available for retrieval by any subscriber.

- **Document Libraries** - Authorized users use the AFAMS Document Library to share information by electronically storing documents for quick access. Users upload documents and add descriptions to ensure others will be able to locate and use the document from online volumes. AFAMS is using this application as a means of reaching its communities worldwide.

- **Web Databases** - AFAMS manages activity records of the Air Force modeling and simulation divisions with on-line databases. The Air Force Suite of Models (AFSOM) uses the Deficiency Report and Change Request (CR/DR) Database to archive all revisions to the models suite that simulate the functions of an Air Operations Center. Revision submitters can view the current status of their change requests.
Another example of on-line databases is the AFAMS Modeling and Simulation Lessons Learned. This area provides an interface to collected lessons learned using the Department of Defense's Joint Universal Lessons Learned System (JULLS). JULLS, developed and maintained at IST, is a database management system that facilitates the process of collecting lessons learned from military exercises, processing collected information, and disseminating the information back to the field. The on-line interface allows the user to view After Action reports or information collected in each lesson learned. The database utilizes a unique filterable search mechanism, which allows the user to narrow, expand or exclude variables from their query using Boolean logic.

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AFMSRR - Air Force Modeling and Simulation Resource Repository

The Challenge
The Air Force Agency for Modeling and Simulation (AFAMS) was created as a field-operating agency to coordinate the Air Force's growing requirement for modeling and simulation. AFAMS needed a way to provide a single source for information about DoD models, simulation, data sources, algorithms, and other M&S resources in order to facilitate reuse and avoid duplication. This would allow users worldwide to discover, access, and obtain M&S resources in support of military assessments, training, and acquisition.

The Approach
In addition to creating and maintaining the AFAMS website (http://www.afams.af.mil), the Information Technology Service Center created the Air Force Modeling and Simulation Resource Repository (AFMSRR) (http://afmsrr.afams.af.mil). It is a web-based application that provides users the ability to search or browse a catalog of records containing descriptions of models, simulations, databases, tool/utilities, standards, publications, points of contact, and related websites. Developed to foster the reusability and interoperability of M&S applications and databases, the AFMSRR serves to reduce redundancy and developmental costs.

The AFMSRR is a database driven, automated application that allows users in the M&S community to submit resources to the AFMSRR through an approval chain. Users must first register with the AFMSRR in order to perform administrative functions on resources they submit. The administrative functions include: review or edit the resource, edit Points of Contact, edit taxonomy assignments, process proposed changes, reassign ownership, relate the resource to other resources, edit personal information, delete the resource, and check to see if any resources are pending or inbound for approval. An Approval Chain consists of all the registered individuals that are defined as having the responsibility of reviewing a new submission prior to its acceptance. Once the last person in the approval chain accepts the resource, it is included in the AFMSRR and is publicly accessible. Members of an approval chain may also demote a resource, in which case it is sent back to the previous person on the chain for further review and revision.
A Sponsor Resource Manager is granted middle level access to the application. In addition to the responsibilities of a Resource Owner, functions of a Sponsor Resource Manager include: ability to email a resource, change approver/status, view other administrative information, view resource history, and view reports.

At the highest-level access available, the Resource Coordinator is assigned the task of maintaining the overall system, in addition to performing all of the functions of Resource Owners and Sponsor Managers. Typical Resource Coordinator activities include system management functions such as overseeing approval chain and sponsor management, maintaining help file definitions, and ensuring the data stored in the system is as accurate and as current as possible.

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Army Model and Simulation Office (AMSO)

The Challenge

Every organization must accept and respond to suggestions from among its employee population in order to increase efficiency and streamline operations. The most valuable recommendations come from the people actually doing the work. However, capturing and responding to suggestions can be a costly, time-consuming process often handled informally in an unstructured environment.

The Approach

The Army Model and Simulation Office (AMSO) ([http://www.amso.army.mil/](http://www.amso.army.mil/)) approached the Information Technology Service Center (ITSC) for assistance in developing a web-based application to track, validate and ultimately vote on suggestions received from its standards committees for consideration as new Army-wide standards. The result was the Standards Nomination and Approval Process (SNAP) ([http://www.msrr.army.mil/snap](http://www.msrr.army.mil/snap)). The entrance point to the system is a simple web-based suggestion form available to anyone in the general Army population. Once submitted, this electronic form initiates a chain reaction. It flows through the system to various organizations and people, dynamically routed depending on the subject category it affects. Many options are available along the route, such as changing the suggestions category, withdrawing it entirely, or allowing it to pass to the next level. All comments and decisions, as well as the initial submission, are saved into a database for historical record. Candidate suggestions are also sent into appropriate reflectors (mailing lists) for widespread review and comment. Upon completion of review, a voting process is initiated. Voting is accomplished via the web as well. A voting committee is selected and each member is allowed to vote multiple times, until the voting period closes. Access to previous votes and comments is provided to assist committee members in the decision-making process. Once voting closes, the results are tabulated and a final decision on the disposition of the suggestion is reached. It is possible to return to almost any point in the system, if necessary, to reconsider the suggestion or to move forward to the last step in the approval process. Final authority rests with the Deputy Undersecretary of the Army (OR). If approved by the Deputy Undersecretary, the suggestion is adopted as a new Army-wide standard and the process is terminated.
In addition to standards tracking, the system provides links to the Army Standards Repository (ASTARS) ([http://www.msrr.army.mil/astars](http://www.msrr.army.mil/astars)) and the Army Modeling and Simulation Resource Repository (AMSRR). ASTARS is an electronic document storage application where documents supporting various standards are maintained. The Army MSRR is a catalog of modeling and simulation resources that allows the user to discover, access, and obtain resources that support military operations, training, and acquisition. The system developed by ITSC, assists AMSO in exploiting the expansive knowledge base of its employee population by establishing a structured processing environment for new standards. It provides a discrete starting point for the entire suggestion system, standardized formats, and defined terminology and responsibilities. It can be migrated to other applications and organizations, and should be useful to any organization interested in taking advantage of the experience and expertise it helped to cultivate.

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AMSRR - Army Modeling and Simulation Resource Repository

The Challenge
Standards Development within the Army's Modeling and Simulation processes is a vital step toward achieving the economies, efficiencies and technological potential M&S represents. Through standards, the Army's M&S community shares techniques, procedures, processes and applications. It builds on the work of others and advances the art and science of M&S in tandem with technological advances.

The Army Modeling and Simulation Office (AMSO) (http://www.amso.army.mil/) is the operational activity of the Assistant Deputy Chief of Staff for Operations and Plans, which validates and prioritizes requirements for Army M&S. Information sharing and efficient communication is important to the M&S community. AMSO approached the Information Technology Service Center (ITSC) to create a way to provide a single source of information for M&S resources in support of military assessments, training, and acquisition.

The Approach
The solution developed by the ITSC, the Army Modeling and Simulation Resource Repository (AMSRR) (http://www.msrr.army.mil/), is a web-based application (part of a DoD-wide system of M&S databases [MSRR]) that provides users the ability to search or browse a catalog of records containing descriptions of models, simulations, databases, tools/utilities, standards, publications, points of contact, and related websites. The database-driven, automated AMSRR is intended as a guide and directory to Internet information on these activities. Users can locate, access, and obtain M&S resources that support Training, Exercises, & Military Operations (TEMO); Advanced Concepts and Requirements (ACR); and Research, Development, and Acquisition (RDA). Developed to foster the reusability and interoperability of M&S applications and databases, the AMSRR serves to reduce redundancy and developmental costs.

The application allows users in the M&S community to submit resources to the AMSRR through an approval chain. Users must first register with the AMSRR in order to perform administrative functions on resources they submit. The administrative functions include: review or edit the resource, edit Points of Contact, process proposed changes, reassign ownership, relate the resource to other resources, edit personal information, delete the resource, and check to see if any resources are pending or inbound for approval. An Approval Chain consists of all the registered
individuals that are defined as having the responsibility of reviewing a new submission prior to its acceptance. Once the last person in the approval chain accepts the resource, it is included in the AMSRR and is publicly accessible. Members of an approval chain may also demote a resource, in which case it is sent back to the previous person on the chain for further review and revision.

A Sponsor (Proponent) Resource Manager is granted middle level access to the application. In addition to the responsibilities of a Resource Owner, functions of a Sponsor Resource Manager include: ability to email a resource, change approver/status, view other administrative information, view resource history, and view reports.

At the highest-level access available, the Resource Coordinator is assigned the task of maintaining the overall system, in addition to performing all of the functions of Resource Owners and Sponsor (Proponent) Managers. Typical Resource Coordinator activities include system management functions such as overseeing approval chain and sponsor management, maintaining help file definitions, and ensuring the data stored in the system is as accurate and as current as possible.

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A-TES STO - Advanced Tactical Engagement Simulations Technology Objective

The Challenge
The Advanced Tactical Engagement Simulations (A-TES) - Science and Technology Objective (STO) (http://www.a-tes.org/) is a research program working towards the development of affordable system solutions that enable training and testing of emerging Force XXI attack weapons in a simulated environment. Sponsored by the U.S. Simulation, Training, and Instrumentation Command (STRICOM), the A-TES STO objective is to help minimize the impact of Force modernization. During its research A-TES STO will review and implement recent studies. This will identify and shape relevant tactical engagement simulation technologies.

The Approach
The Information Technology Service Center created a place where it would be possible to for people worldwide to find out about A-TES STO and A-TES STO members could easily access the information they needed. Some of the communication tools being on the A-TES STO web site are:

- **Document Library** - The A-TES STO Document Library will be used to electronically store documents for quick and remote access by authorized users. Allowing users to upload documents and add descriptions, the Document Library provides a way for users to share information online and worldwide.

- **Discussion Forums** - Established A-TES STO Discussion Forums allow users to join discussions and share information efficiently and easily. Messages exchanged within a forum are sent to all current subscribers allowing everyone to follow a topic and add their own ideas and/or thoughts. All traffic within the forums is archived and made available for any subscriber to retrieve.

- **A-TES STO Links** - The A-TES STO Links application provides visitors a place to submit links they think might be of interest to others interested in A-TES STO. An administrator must approve all of the links submitted before being posted to the web site.
- **Webletter** - In the future, A-TES STO will publish an online newsletter containing news and information about the program. The Webletter allows visitors to submit written articles and an administrator can approve, layout, and publish customized online newsletters at any time.

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ETech - Essential Techworks

The Challenge
Essential Techworks (http://www.etechworks.com/), ETech, provides technical solutions to businesses worldwide. They offer state-of-the-art computers, audio/visual equipment, high-speed Internet connections, and 24-hour onsite technical help for conferences, trade shows, and offsite meetings. As they continued to expand, ETech needed a way to track their jobs, from the initial quote until the inventory is returned to the warehouse after a job. ETech approached the Information Technology Service Center for a solution.

The Approach
ITSC first step was to examine ETech's job system to determine the best solution. Once ITSC had an understanding for ETech's needs, they created an Inventory Tracking System. The system allows for inventory to be entered into the system either manually, or through the use of an UPC scanner. Once in the system, a database keeps track of each inventory item with job numbers. Not only does the warehouse use the system but it was also designed for everyone within ETech.

Sales personnel use it when talking to potential customers. Armed with the knowledge of ETech's entire inventory AND what equipment will be available on the date specified by the customer, they can provide accurate quote for a job. They also use the system to reserve equipment; reservations that are instantly available for workers in the warehouse to see.

Those working in the warehouse use the system to keep track of the equipment on and off the shelves. It also lets them know when to begin preparing equipment to ship and when equipment needs to be serviced. The system also allows warehouse workers to know when equipment on the shelves is reserved for a job and, therefore, cannot be assigned or shipped to another job. Warehouse managers can use the system to keep track of each of the vendors who supply equipment and the events that are approaching.

On an administration level, the system allows managers to keep track of all jobs within ETech. It generates reports on available equipment, equipment that is out on a job, how much equipment is being repaired as opposed to what is actually available, and several other things. The system not only tracks the actual equipment but any other important information related to it. For instance, the system can keep track of when a lease was purchased and when it will end. It also informs managers when equipment warranties are expiring and allows them to log all customers and jobs.
The Office of Graduate Studies at the University of Central Florida

The Challenge
The Office of Graduate Studies (http://www.graduate.ucf.edu/) at the University of Central Florida was created to aid potential students in the process of pursuing graduate education at UCF. Graduate Studies is responsible for all graduate admissions and programs on campus. Graduate Studies staff is involved in every step of the Graduate experience. They assist graduate students with the selection of classes, getting financial aid, and with the graduation process. With a desire to make it easier for graduate students to get the information they need quickly, the Office of Graduate Studies approached the Information Technology Service Center about creating a place online for current and potential students.

The Approach
ITSC designed a web site that would allow students to find out more about Graduate Studies at UCF. The web site contains an online version of the Graduate Catalog (http://www.graduate.ucf.edu/catalog/), including descriptions of all the graduate courses UCF offers. Applications and corresponding forms are available for potential students to download. Current students can find information on important dates and the preparation of theses and dissertations. Not only designed for students, there is also a section of the site devoted to faculty and staff. It serves as a place for faculty to find guidelines and the latest news. The site also includes the following:

- **Graduate Knightly News, Online Newsletter** - The Graduate Knightly News (http://www.graduate.ucf.edu/webletter/) is an online newsletter created by ITSC. It allows site visitors to submit articles, including uploading images to go with their articles. An online editor can then accept/edit the articles and create a newsletter by choosing from five templates and selecting articles to fit into the template. The newsletter is published and dynamically created online by the entire process. Once complete, visitors may read the articles or search past issues for articles.

- **Graduate Knightly News, Faculty & Staff Edition** - The Faculty & Staff Edition (http://www.graduate.ucf.edu/fs-webletter/) of the Graduate Knightly News was created to provide faculty members and staff with the latest graduate news on campus. It contains all of the features of the Graduate Knightly News.
The Challenge

The Navy Modeling and Simulation Office (NAVSMO) was established in 1985 to serve as a focal point for Navy modeling and simulation, as well as to the Services, DoD, Joint Staff, and other agencies. Its role is to provide centralized management of Navy M&S, coordinate M&S efforts across functional areas, and develop policies and procedures necessary for M&S standardization within the Navy. Like the Air Force Agency for Modeling and Simulation (AFAMS) and the Army Modeling and Simulation Office (AMSO), the Navy needed a single source for information about DoD models, simulation, data sources, algorithms, and other M&S resources in order to facilitate reuse and avoid duplication.

The Approach

The Information Technology Service Center (ITSC) created the Navy M&S Catalog (http://navmsmo.hq.navy.mil/nmsiscat/) as part of a DoD-wide system of M&S databases (MSRR) that allows users to discover, access, and obtain M&S resources that support military assessments, training, and acquisition. It is a web-based application that provides users the ability to search or browse a catalog of records containing descriptions of models, simulations, databases, tool/utilities, standards, publications, points of contact, and related websites. The Navy M&S Catalog, developed to foster the reusability and interoperability of M&S applications and databases, thereby serves to reduce redundancy and developmental costs.

The Navy M&S Catalog is a database driven, automated application that allows users in the M&S community to submit resources to the Navy M&S Catalog through an approval chain. Users must first register with the Navy M&S Catalog in order to perform administrative functions on resources they submit. The administrative functions include: review or edit the resource, edit Points of Contact, edit taxonomy assignments, process proposed changes, reassign ownership, relate the resource to other resources, edit personal information, delete the resource, and check to see if any resources are pending or inbound for approval. An Approval Chain consists of all the registered individuals that are defined as having the responsibility of reviewing a new submission prior to its acceptance. Once the last person in the approval chain accepts the resource, it is included in the Navy M&S Catalog and is publicly accessible. Members of an
approval chain may also demote a resource, in which case it is sent back to the previous person on the chain for further review and revision.

A Sponsor Resource Manager is granted middle level access to the application. In addition to the responsibilities of a Resource Owner, functions of a Sponsor Resource Manager include: ability to email a resource, change approver/status, view other administrative information, view resource history, and view reports.

At the highest-level access available, the Resource Content Manager is assigned the task of maintaining the overall system, in addition to performing all of the functions of resource owners and sponsor managers. Typical Resource Content Manager activities include system management functions such as overseeing approval chain and sponsor management, maintaining help file definitions, and ensuring the data stored in the system is as accurate and as current as possible.

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NAWCTSD/STRICOM – Request for Proposal Application

The Challenge
The Naval Air Warfare Center Training Systems Division (NAWCTSD) (http://www.ntsc.navy.mil/) provides support of training systems and state-of-the-art simulation technologies for all Naval warfare areas and other services. The Simulation, Training and Instrumentation Command (STRICOM) (http://www.stricom.army.mil/) provides the Army with training devices and various other instrumentation products for both training and testing. NAWCTSD and STRICOM post contractual notices and documents to their web site to inform visitors of business opportunities. However, this meant converting each of those documents to HTML and then constant maintenance to ensure all out-dated documents were removed on time. NAWCTSD/STRICOM asked the Information Technology Service Center to develop an automated system to would help them control the process.

The Approach
ITSC created the Request for Proposal Application to meet NAWCTSD/STRICOM's needs. The system is designed to allow submission of new documents, automatic deletion of documents that have expired, and posting of award notices. Visitors may choose to view new documents, documents that are closing within a specified period of time, or all documents in the system. However, to make the system fully automated and able to be maintained remotely, administrators were given customizable abilities. They can add, edit, activate, and deactivate acquisition types and contract types. They may edit their own personal information or add new personnel. They may also edit any URLs found within the system. This takes away any need for the knowledge of HTML or more to be able to update and maintain the system's pages.

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Office of Research at the University of Central Florida

The Challenge

The Office of Research (http://www.research.ucf.edu/) at the University of Central Florida is dedicated to facilitating research and development across a wide spectrum, and providing support to UCF Faculty and Research Institutes. The Office of Research (OOR) is the official university liaison between UCF Research and the commercial sector. In order to take this support of research to another level, OOR approached the Information Technology Service Center (ITSC) about creating an interactive dynamic web site that would allow them to reach both faculty and others interested in research at UCF worldwide.

The Approach

The goal of the OOR web site was to allow OOR staff to easily update information over the web with the use of several of ITSC’s database driven applications. The site addresses commercial companies interested in forming research partnerships with UCF and is a tool for faculty members. It provides easy access to policies, guidelines, and forms necessary to research development on campus. ITSC has used the following tools to facilitate communication within the UCF Research Community:

- **About Us (Organization)** – The About Us section incorporates the use of ITSC’s Organization application. This allows OOR staff members maintain up-to-date staff listings and division information. Using a database to store employee information and division descriptions, OOR staff uses the web to generate dynamic web pages based on the information they input. This ensures that the staff listing is always current and that visitors will always be able to find and reach important research faculty.

- **Latest News (Announcements)** – The Announcements application allows administrators to quickly add new announcements to a web site. As new announcements are added, administrators may control the placements of announcements on the page so that important announcements are placed at the top for easy viewing. It also allows for the
addition of pictures with announcements and easy updating/deletion of old announcements.

- **Online Newsletters** - The site will also incorporate two online newsletters, the Office of Research Newsletter and GIC's Research News & Reviews. Visitors may submit articles to the newsletters generating an email to the newsletter editor. The application was created to allow the editor the ability to take those submitted articles, edit them and arrange them on a web page without having to know any HTML. The editor chooses from five different templates and easily publishes newsletters with the touch of a button.

- **Related Sites** - This application was created by ITSC to keep track of OOR's links to contributor, education, government, grants & proposals, partner, and UCF College & Department web sites that are important to anyone interested in research at UCF. As new URLs are recorded, email is generated and sent to a list server where subscribers are notified of the new addition. All information is maintained in a relational database for tracking and simplified administration.

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The Challenge

The Office of Training Technology (http://www.ott.navy.mil/) CNO (N75) was established in January 1995 out of a need for a more consolidated and focused approach to the management of training technology issues and initiatives within the Navy. In order to manage these issues and initiatives on a worldwide basis, the Office of Training Technology (OTT) sought an efficient method of sharing and communicating information and resources to its community.

The Approach

To combat OTT's task of reaching a worldwide audience in an efficient manner, the Information Technology Service Center (ITSC) built the OTT Spider Website. ITSC also maintains this highly interactive on-line resource site in order to provide a continuous means of on-line communication and data access to OTT's training communities. Some of the tools being used to facilitate a more efficient management of training technology resources are:

- **Training Technology Baseline Database** - In order to procure and maintain advances in the variety of training technologies, command sponsor managers need to know what exists now to assist in future planning. The Training Technology Baseline database reflects both the technology and capabilities of every sponsor's formal courses as well as the aggregate capability of the command.

- **OTT Calendar of Events** - The OTT on-line calendar is an efficient means of communication in its community. The on-line calendar is currently being used to schedule meetings, announce courses and workshops, and notify members of upcoming presentations. The dynamic calendar allows users to utilize keywords and text searches, and allows access to full event information.

- **Conference Center** - The OTT conference center enables users to join established electronic reflectors (groups) and share information in an efficient manner. OTT holds a range of "conferences" through these reflectors, from open discussion forums to updating subscribers of updates to the site.
**Links** - This application was created by ITSC to keep track of OTT's links to other DoD, government and academic websites that pertain to training technologies. As new URLs are recorded, email is generated and sent to a list server where subscribers are notified of the new addition. All information is maintained in a relational database for tracking and simplified administration.

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SISO - Simulation Interoperability Standards Organization

The Challenge

The Simulation Interoperability Standards Organization (SISO) ([http://www.sisostds.org](http://www.sisostds.org)) is a group made up of hundreds of volunteers from around the world, working together on facilitating simulation interoperability and component reuse across DoD, other government, and non-government applications. SISO seeks to: provide a forum for the interchange of new ideas, concepts and technology across the broad Modeling and Simulation community; disseminate these ideas; educate Modeling and Simulation practitioners and sponsors regarding their implementation; and support the development of standards, practices, and guides for use in various applications. Because of the widespread membership base for the SISO group, communication between members can be very difficult.

The Approach

The Information Technology Service Center (ITSC), located at IST, has developed several web-based database applications to facilitate SISO's work. Employing these types of tools has enabled SISO, which is technically a "virtual" organization of volunteers, to effectively operate and communicate with the standards community. To help facilitate communication between the SISO volunteers, one of the services provided and maintained by the Information Technology Service Center (ITSC) is an Internet mail server (list server) that allows individuals to join and leave discussions groups at their discretion. After subscribing to a discussion group, all "discussions" occur via email. All email sent to the group is automatically forwarded by the list server to all subscribed members. Over the years, the ITSC group has refined the process of subscribing, unsubscribing, and obtaining subscription information, streamlining the process for users. For anyone who may be uncomfortable with the process, ITSC’s personnel provide frequent one-on-one service to work through problems. The use of these "discussion groups" has proved to be extremely valuable to SISO and its community. Everyone is able to participate through the convenience of email.

To further discuss issues facing the standards community, the members of SISO meet twice a year to present papers and ideas regarding the standards for simulation interoperability. The process of collecting and disseminating abstracts for review, as well as mailing invitations for paper and presentation submission, collecting those papers and presentations so they can go into
a bound and printed copy of the "proceedings" is a difficult and time consuming task for any organization. It is even more difficult when the participants in this process are not centrally located. The ITSC group developed an automated, web-based, database management system to help facilitate each step. Termed the Conference Papers Management (CPM) system, it supports the collection, management, distribution, and organization of all abstracts, papers, presentations, and minutes collected. SISO committee members have immediate access to submitted abstracts and papers via the website. Using a web interface, the committee can easily pick and choose the abstracts they would like papers on and which ones should be presented. Upon selection, the system notifies the author via email if their paper was selected and what the scheduled time for presentation is. The system also has the ability to generate a "data dump" of all of the information available on the website to a format that can be run locally on a CD-ROM. In addition, the ITSC has developed an Agenda application to work along with the CPM. The Agenda application provides the committee an easy way of scheduling presentations against the rooms and times available at the conference site.

Another dilemma for SISO is the problem of electing new officers for the organization's multiple working groups. Previously, SISO collected nominations via email, consolidated the nominations, sent email to the members to get their votes and tabulated the results manually. This process took weeks to complete and involved substantial hours on behalf of the SISO volunteers to organize the election and consolidate the information. ITSC's solution was to develop a web-based, database system that allows the SISO administrators to quickly and easily define the questions (e.g., names of working groups) to appear on the ballot of an upcoming election. Members of SISO electronically submit their nominations for the working groups that they want to apply for and the system automatically ties together the nominations to the correct working group questions and makes the information immediately available on the SISO website. When the nomination period ends, the system sends PIN codes and a copy of the ballot to all registered members asking them to cast their votes. When an eligible voter logs into the election system, they are presented with a personalized ballot with only the categories that voter is eligible to vote on. After voting, the results are saved in the elections database and the voter is emailed a copy of the votes cast. The elections manager can monitor the election "live," viewing several reports that summarize voting by day and by election category. The design of the system is sufficiently generic to permit rapid deployment for other customers needing similar capabilities.

One of the most recent ITSC developments is the Standards Comment Tracking System (CTS) (http://www.sisostds.org/stdsdev/). The CTS provides a means for standards documents to be reviewed and commented upon. Comments are collected on a section-by-section basis so as to provide relevant and pertinent information to the editors of the document. The CTS also provides an administrative area via the web that allows the editor of the document to review comments and provide resolution to the comments. The resolution then gets emailed back to the submitter.
After the standard has gone through the draft stage and has been reviewed, the CTS provides a utility for reviewers to "vote" on the standard, deciding whether the standard should go through another round of review or if it should become the final document. These votes are captured electronically over the web and tallied by the CTS to provide the standard editor an accounting of the votes.

The SISO web-based Document Library is also an ITSC developed web application. It is the perfect storage facility for keeping the standard documents generated by the Comment Tracking System (CTS). The document library allows for on-line uploading of documents, search capability, and ability for users to download documents or have them emailed. The library also supports the use of filters and the creation of directories and subdirectories for filing purposes and easy retrieval. Multiple "librarians" can be set up to administratively control these directories and the permissions to individual files. The application provides SISO with a very simple method of sharing research, documents, papers, etc. amongst the community.

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The Navy's Submarine Training Master Communication System (STMCS) (https://www.submarinetraining.navy.mil/) needed a way to share documents with its worldwide community. STMCS approached the Information Technology Service Center for a tool that would help solve this issue. ITSC suggested STMCS use a Virtual Library. The Virtual Library can be accessed via the Internet all over the world by authorized users. It allows users to upload and share information and documents easily. The Library dynamically creates entries that can be indexed and searched by all users. This automated process simplifies and eliminates the need for a person to convert any/all documents into HTML in order to post them. The documents also pass through an approval chain to ensure they are of interest to those viewing the Library. In addition, all submitted documents are scanned for viruses, which could be a tedious task if performed by a person rather than a system. STMCS' Virtual Library allows them to efficiently communicate with others worldwide.

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US Army Simulation, Training, and Instrumentation Command (STRICOM) Innovation Laboratory

The Challenge
The STRICOM Innovation Laboratory consists of workstations of mixed design, less than half a dozen servers of mixed design, and a simple Ethernet network sharing the IST router and Internet access line. The intention is to grow this capability to include two additional networked labs (a wireless LAN and the Innovative Center lab). It is expected these labs will call for the addition of workstations within local STRICOM personnel offices as well as necessitate the addition of a dedicated router.

The Approach
Information Technology Service Center (ITSC) personnel will assist the STRICOM Lab Manager to move the current network environment to an even more sophisticated one and provide for the following:

- Daily operation multiple windows & Unix workstations and servers.
- Assistance to visitors including application installation and configuration.
- Network sub-net planning, routing, and IP assignment.
- Security of servers and workstations to include internal/physical security and external Internet attack and intrusion detection and prevention.
- Technology application advice and assistance to developers and engineers.
- A publicly accessible, web-based scheduling of facilities.

Sub-hand receipting to the contractor for current and future lab equipment to include maintenance of an inventory tracking/auditing mechanism.

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VERTS - Virtual Emergency Response Training System

The Challenge

The purpose of the U.S. Army Simulation, Training, and Instrumentation Command (STRICOM) sponsored Virtual Emergency Response Training System (VERTS) is to develop a virtual training environment for RAID teams. Initially VERTS will be focused on the RAID Survey groups and will provide an environment that facilitates individual and collective training. The VERTS team will develop scenarios that reflect expected real world situations. VERTS will be PC-based technology that is designed for the user. The VERTS team approached the Information Technology Service Center (ITSC) for a way to share their software with people worldwide.

The Approach

ITSC will develop and host a dedicated website to serve as a focal point for communication and sharing of materials between program participants as well as publicity and information to those outside the program. A custom application will be developed to support VERTS Problem Tracking. This application will be a web-based database system whereby developers and general users would have input and modification authorities appropriate to their needs (as defined by the VERTS Program Manager). The application will include flow control for proper authorization and administrator access for full system management. Other existing web-based applications will be included to reduce costs and increase capabilities. Each application provides for self-administration by the client via a web browser.

- **Document Library** - A knowledgebase for storing files to be shared with others while controlling/restricting access.

- **Announcements** - An application for highlighting important announcements on the main web page

- **Links** - An application for entering and presenting related URLs for visitors.

- **Reflectors/Forums** - This includes up to ten (10) electronic, email-based, individual-to-group communications, including web-based signup. These may be public or private. Traffic is maintained in a web accessible database for easy searching and archival.

- **Other Contractor Applications** - Other applications are available which may be employed at the Client’s discretion.
The University Writing Center (UWC) provides free writing support to all undergraduates at the University of Central Florida (services for graduate students). They routinely work with everyone including freshmen writing research papers, international students writing lab reports and honors students writing theses. They also help with out-of-class writing such as letters to congressional representatives, club newsletters, and scholarship application essays. In addition, the UWC offers special topic workshops and CLAST preparation.

The UWC needed an online method of scheduling writing appointments in order to reach more prospective students. The Information Technology Service Center created the Scheduler to facilitate this need. The first time students use the Scheduler they are allowed to set up a profile that helps the UWC keep track of their students contact information. The application also allows students the ability to view the availability of the Center's writing consultants and set up appointments many months in advance.

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