Web Development Proposal for the IEEE Information Theory Society

May 21, 2008

Ref.: #IEEE002

Six Feet Up, Inc.
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We would like to first thank you for the opportunity to provide our expert perspective within this proposal. It will be our pleasure to assist you with the development of your new Information Theory Society website powered by the Plone 3.1 Content Management System.

Six Feet Up's core strengths are in the areas of systems architecture, open source software development, content management systems implementation, Zope/Plone deployment and project management. Six Feet Up will function as the leader of the project from initial setup to final deployment.

With that as a foundation, you will find within this document proposed development steps, explanations of key recommended technology as well as background information about Six Feet Up.

Again, thank you. We look forward to working with you on this project

— All of us on the Six Feet Up team

SECTION I: BACKGROUND AND PHILOSOPHY

ABOUT SIX FEET UP

COMPANY BACKGROUND

Founded in San Francisco, Calif., in 1999, Six Feet Up, Inc. is a private woman-owned company that develops custom web applications to help manage business online.

Six Feet Up, Inc has grown into a consulting company now headquartered in the Indianapolis, Indiana area with twelve core resources, and backed by a dozen consultants located both in the US and in Europe. Depending on projects needs and sizes, Six Feet Up also leverages its connections in the online Community to tap into resources from other open source solution providers.

Six Feet Up's core business lies in the implementation of Content Management Systems (CMS) that allow updates to a website without the need for a webmaster.

Overall the company leverages the power of open source technologies (Plone, Zope, Mozilla, XUL etc.) to bring enterprise-level web functionalities to our clients, both small and mid-size companies, whether they are in the non-profit sector or large commercial organizations.

More specifically, Six Feet Up has been using the Plone Content Management System version 2.0 or higher since March 2004. Prior to March 2004 the company was implementing Zope sites using the Content Management Framework (CMF).

Six Feet Up is a big supporter of open source initiatives and has been actively contributing back to the Community (e.g. MailmanAdaptor, PromoEngine, CMFDeployment, PloneGetPaid, etc.).

At the Plone Symposium 2005 in New Orleans and at the 2005 Plone Conference in Vienna, Austria, Six Feet Up presented many tutorials on how to use the XUL technology with Plone. At the 2006 Plone Conference in Seattle, and at the 2007 Web Content Symposium in Chicago, Six Feet Up presented a real-life case study on the implementation of an RDF-based database. At the Plone Symposium 2008 in Penn State, Six Feet Up offered four presentations addressing various Plone development and deployment topics.

Among our clients:

- The Institute for the Study of Knowledge Management in Education (ISKME)
- The Long Now Foundation (Rosetta Project)
- Northwestern University
- University of Virginia
- Duke University
- University of North Carolina

PROJECT TEAM BIOGRAPHIES

Gabrielle Hendryx-Parker
Principal & Project Leader

Six Feet Up, Inc. co-founder Gabrielle Hendryx-Parker brings over 14 years of experience in international product marketing and project management. As Dir. of Marketing for Six Feet Up, Inc., she manages a team of Plone developers to translate client's vision and goals into powerful and easy to manage user interfaces.

Before starting Six Feet Up, Gabrielle worked with high-tech start-ups in the Silicon Valley for 5 years, providing companies with a strong customer-oriented vision and down-to-earth marketing advice. At MGI Software (now Napster), she managed the development of an award-winning digital imaging software product featuring a Warner Bros. License.

In Paris, France, she worked for Kodak, Microsoft and NCR, where she was investigating and providing recommendations on the launch of several new products and services.

Gabrielle holds an M.B.A. in Marketing and Leadership from EM Lyon, France. She can be reached at gabrielle@sixfeetup.com.

Calvin Hendryx-Parker
Principal & Dir. of Engineering

Six Feet Up, Inc. co-founder Calvin Hendryx-Parker has 11 years of experience in fields as diverse as systems engineering, data modeling and information architecture.

As Systems Engineer for Epylon, an enterprise-class company providing integration services to public sector entities, Calvin implemented ERP systems, deployed marketplace application servers and spearheaded network trouble-shooting.

As co-founder and Director of Engineering for Six Feet Up, Inc., Calvin oversees open source content management systems implemented in Plone, CMF and Zope. He is a proponent of web standards to ensure inter-operability with other platforms and serves as the company's System Architect to promote projects scalability and extendibility.

Calvin holds a Bachelor of Science from Purdue University. He can be reached at calvin@sixfeetup.com.

Kurt Bendl
Senior Developer

Kurt brings over 14 years of web development experience to Six Feet Up. He has been working with Python and Zope since 1999, and managed the deployment of over 250 Plone sites at the University of Louisville.

Kurt combines strong technical skills with experience working with small and large scale deployments. He has experience providing solutions for a myriad of business needs across a broad range of technologies.
Kurt also brings years of project management and team leadership experience. Before his five-year tenure at the University of Louisville, Kurt owned and operated a small web development company with annual sales of over $750,000.

He can be reached at kurt@sixfeetup.com.

Clayton Parker
Senior Developer

When pursuing his Philosophy Major at IUPUI (Indiana University-Purdue University Indianapolis), Clayton excelled at Logic, which led him into programming.

Clayton started with Six Feet Up, Inc. as the Systems Administrator being in charge of monitoring and backing up servers, updating operation systems and managing customers accounts.

He then quickly moved on to programming dynamic websites, developing custom web applications and custom content objects using Zope, Plone, Archetypes, Python etc.

He can be reached at clayton@sixfeetup.com.

Lucie Lejard
Developer

Lucie Lejard holds a Bachelor of Science in Computer Science from Université de Jussieu Pierre et Marie Curie in Paris, France, as well as a Masters Degree in Algorithm and Programming, topped with a specialization in Multimedia Information Systems.

Lucie is well versed in various programming languages including PHP, Java, C++ etc. Her problem-solving skills make her a core contributor to any development project.

She can be reached at lucie@sixfeetup.com.

Chrissy Wainwright
Template Designer

Since she obtained her Bachelor of Science from the Western Illinois University, Chrissy has accumulated 4 years of experience in website development with a focus on human computer interaction and web usability.

Chrissy enjoys problem solving and fixing bugs, which she has leveraged to reach a solid level of proficiency with XHTML and CSS. With an eye for design and detail, she is very thorough when developing templates and is a strong advocate of adherence to web compliancy standards.

She can be reached at chrissy@sixfeetup.com.

Andrew Parker
Release Manager & Deployment Expert

While he was pursuing his Bachelor of Science degree at IUPUI (Indiana University-Purdue University Indianapolis), Andrew worked as a Production Network Engineer in the Hewlett-Packard Hardware Deployment Department. There he maintained and supported a stable workflow environment for production, and acted as an Administrator for the initial setup and configuration of HP servers.

As a Release Manager and Deployment Expert for Six Feet Up, Andrew manages the day-to-day Source Control Management for all running projects. He also specializes in open source systems engineering and system performance.

He can be reached at andrew@sixfeetup.com.

OUR PARTNERSHIP PHILOSOPHY

"Open" communications as a partnership foundation

Six Feet Up embraces an "open" philosophy in our technology, and in the way we treat our customers. Our long history of participation in the open source community has solidified our position with our peers, while our transparent and inclusive communication with our customers distinguishes us as a technical company that focuses on your needs.

The "Trac" system is the centerpiece of our approach. Trac is a password-protected, web-based software designed to simplify tracking and communication of project issues, enhancements and monitoring overall progress. Trac ensures that our Clients get involved in every phase of the project by making it easy to report, annotate and follow up on project tasks, design concepts, software bugs and changes.

Using well-respected collaboration tools like Trac, our clients are intimately involved with the development of their own software. Six Feet Up maintains a well-used database of a project's development history that allows the client to monitor the development of their software and respond to queries regarding their needs. Our customers always have the latest information regarding their project online, so they never have to worry about being "out of the loop".

CLIENT REFERENCES

Advanced Document Sciences

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UVa Health System

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PORTFOLIO SAMPLES

Highly Visible Project

Discover Magazine

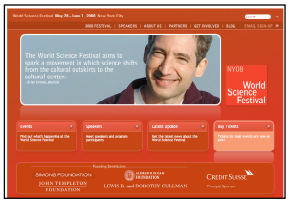
Six Feet Up has been providing on-going web maintenance services for the highly visible Discover Magazine website (http://www.discovermagazine.com).

More specifically, the work has included the implementation of content-managed polls with SQL as a backend, the migration of blogs to Wordpress, as well as the integration of ads into the Wordpress blogs.

Part of the current ongoing maintenance effort includes the implementation of a new design layout for the home page and other subpages of the site, as well as the development of a popularity count mechanism that works with the caching rules in place.

Plone 3 Experience

World Science Festival



Earlier this year, Six Feet Up was asked to work on an exciting new web project for the first World Science Festival (http://www.worldsciencefestival.com), a five day science festival in New York city featuring Nobel laureates and co-founded by Brian Greene.

Powered by Plone 3, the site provides visitors with details about the festival various events, the participants, the organizers, as well as the various event locations. Thanks to an ingenious mechanism implemented by Six Feet Up, the site administrators can easily manage people's profiles, whether they are speakers, advisors, moderators, organizers or members of the founding team. The navigation system has also been heavily modified to provide flexibility in the choice and the order of the displayed links.

Launched early April 2008, the site was deployed by Six Feet Up onto their own servers using a clustered Zope application server with Pound acting as the load balancer. Six Feet Up set up Nginx to do the rewriting while Squid has been handling the reverse HTTP acceleration.

Large Deployment Experience

American.com

In 2006, the American Enterprise Institute (AEI) launched a new website for their magazine "The American" (http://www.american.com), a new bimonthly business and economics magazine.

The site was deployed by Six Feet Up who set up Squid as an HTTP accelerator and installed Pound to balance the load across a Zope ZEO cluster. On the third day after its launch, the site enjoyed close to 8 GB of traffic and remained quick and stable.

DEVELOPMENT AND DEPLOYMENT METHODOLOGIES

Development

Thanks to the years of commercial development experience with Python, Zope and Plone present in our portfolio, we possess a depth of knowledge that guides every project. We especially make a point to employ many of the best practices in development.

All source code and project resources are tracked in a source control management system. Any code commits that are related to a ticket in our Trac project management system are linked via the ticket number to enable viewing the progression of a particular fix. Mailman mailing lists are used to distribute the changes in the Trac and Subversion repositories to subscribed parties.

In addition, our developers are well versed in using available development, debugging and profiling tools such as zopectl debug and pdb to ensure software quality. And they follow all of the proper conventions for the application server such as including .metadata files with all skin resources to ensure proper caching and security.

Automated Functional Testing

Consistent deployment is critical to the success of any project. The assurance of software quality and behavior will be accomplished through such industry-recognized practices as regression testing and functional testing. These tests help ensure the correctness and operation of software.

Six Feet Up's proposals include time to develop software tests for each milestone. The tests run automatically after each release to prevent code regression and ensure quality.

Manual QA

Quality Assurance time is included in our proposals to cover the time spent manually testing the developed functionalities and addressing any issues found.

Releases

Multiple developers typically work together on our projects. They each work off of their local machines and contribute their code to a central Subversion repository.

Commits for software releases are tagged so as to keep a clear versioning history. Releases are first performed on a testing environment our customers have access to. When parallel work needs to happen, branches are set up and multiple instances are available for testing.

The Six Feet Up hosting infrastructure handles source code Subversion repositories, Trac issue trackers and staging instances of the tools throughout the development phase. Depending on the license, the source code can later be migrated to another repository or hosted in the Six Feet Up public repository.

Deployment

Six Feet Up will deploy the proposed website to the production environment of Client's choice (see "Deployment to Production Environment").

Support and Maintenance

Support, maintenance and upgrades may be additional to this proposal and part of a separate agreement.

Project Management

Project management time has been included in this proposal. Six Feet Up encourages peer programming and team work on all of our projects as a way to catch typos, increase concentration, and provide multiple points of views at each stage of the project. Simply put, we believe multiple brains are better than one when addressing problems.

To ensure coordinated teamwork, a short meeting takes place daily to foster communication between team members, review progress and set priorities.

Trac is at the core of our project management efforts. By closely reviewing tickets, organizing them in milestones, and assigning them to the appropriate person throughout the project, we ensure each issue is addressed and resolved in a timely manner. This also allows our the project stakeholders to be kept in the loop at all time, provide additional information on required functionalities, and participate in critical decisions.

SECTION II: SCOPE OF WORK

Information Architecture & Wireframes (Pre-Development)

Six Feet Up and Client will agree on a final information architecture (technical diagram) and site map, as well as on the wireframed pages of the site that need to be updated based on the work done under the previous agreement (ref. #IEEE001).

Six Feet Up will provide an initial set of wireframes for the agreed upon pages, and one revised set after client review and feedback.

Estimated time: 10 hrs

Light Skin Design Development (Pre-Development)

Upon final approval of the wireframes by the Client, Six Feet Up will develop one light “skin” design concept for the home page and one subpage.

The Plone default logo will be replaced with Client's logo and the existing color palette customized to match existing branding materials. In addition, a custom header image is usually developed to reinforce the organization's identity and add some visual attractiveness to the whole project. Additional graphic elements, such as bullet images, paragraph headers, portlet formats, are also quickly replaced through CSS to provide a consistent feel despite the absence of a true design effort per se.

Example of light skin design work can be found at:
http://www.sixfeetup.com/development/design/lite-plone-designs

Six Feet Up will provide an initial design concept for the generic wrapper template, and one revised design based on Client’s review and feedback.

Estimated time: 30 hrs

Web Application & Database Setup (Pre-Development)

Six Feet Up will set up the Plone framework scripts necessary for installation and deployment to local and testing instances (buildout and GenericSetup).

A Subversion repository will be created and linked to the Trac project management system.

Development and testing environments will get set up.

Estimated time: 14 hrs

Web Application Development

Six Feet Up will develop Client’s website using XHTML, CSS, Javascript and Plone 3.1 technologies.

Web pages will use valid XHTML 1.0, CSS1 and CSS2. Web pages will be tested and optimized for IE 6, IE 7, Firefox 2.0, and Safari 2.

More specifically, the following features and functionalities will be developed:

Development of Generic Templates:

- Home page template
- Implement main wrapper template
- News landing page
- News detail page
- Events landing page
- Event detail page

Estimated time: 48 hrs

Development of the People List functionality, including:

- Create a custom People List participant management screen
- People list view class for archives
- Create Participant object
- Create AwardPaper object
- Create Award template skeleton
- Create People list template skeleton
- Style the People list template
- Create ListBase object
- Style Award template
- Create skeleton for the People List archive portlet
- Create add/edit form for participant objects
- Create add/edit form for AwardPaper objects
- People list administrator appointments field
- Create PeopleList object
- Create Award object
- People list archive portlet (style)

Estimated time: 195 hrs

Development of the "Person" object, i.e.:

- Develop Person profile detail template (skeleton)
- Create Person object
- Style Person profile detail template
- Set up "Research interests" vocabulary
- Set up Profile Directory redirect view
- Add 'getLastName' catalog index

Estimated time: 66 hrs

Setup of Membership Management functionalities:

- Create Custom Member object
- Implement custom local roles using borg.localrole
- Use member approval workflow

Estimated time: 69 hrs

Setup of the Paper object:

- Create the skeleton for the Paper detail template
- Create the skeleton for the Paper list template
- Style the Paper detail template
- Style the Paper list template
- Create the Paper object
- Set up "Paper categories" vocabulary

Estimated time: 73 hrs

Setup of the Meetings object (see wireframes):

- Meeting template (skeleton)
- Meeting template (style)
- Meeting object

Estimated time: 30 hrs

Training

Six Feet Up will provide up to two (2) hours of training and guidance to Client's staff. An Online Help Center will be developed to serve as a content editing reference for Client's content contributors.

Estimated time: 22 hrs

Additional help will be available over the phone anytime Client's content contributors have a question regarding how to use the Plone CMS. This complimentary service will be provided at no extra cost to Client for a period of three months.

Deployment to Production Environment

While Six Feet Up offers to host Client's site, we will be happy to deploy the final site on any supported platform of Client's choice that runs the Plone and Zope technologies.

This proposal specifically covers the deployment of the site onto a Linux, FreeBSD or OS X server. Any deployment on a different environment will be considered out of scope of this proposal. Six Feet Up will provide additional software and library requirements that a potential host must fulfill in order to guarantee full operation of the client's site.

Estimated time: 19 hrs

Warranty & Technical Support

Six Feet Up will provide a six-month warranty on the electronic system delivered starting on the date of the final release to Client. Provided that Six Feet Up hosts the system, the warranty will cover system functionality and hardware and software configuration.

In addition, Six Feet Up will provide a warranty for application programming and logic. All application or system bugs classified as "critical" will be fixed within 24 hours. Bugs classified as "serious" or "annoying" will be addressed in a timely manner, as long as they do not obstruct the functionality and usage of the system.

Limitation of Liability

(a) In no event shall Six Feet Up be liable to Client for lost profits of Client, or special or consequential damages, even if Six Feet Up has been advised of the possibility of such damages.

(b) Six Feet Up's total liability under this Agreement for damages, costs and expenses, regardless of cause, shall not exceed the total amount of fees paid to Six Feet Up by Client under this Agreement.

(c) Six Feet Up shall not be liable for any claim or demand made against Client by any third party except to the extent such claim or demand relates to copyright, trade secret or other proprietary rights.

(d) Client shall indemnify Six Feet Up against all claims, liabilities and costs, including reasonable attorney fees, of defending any third party claim or suit arising out of the use of the Software provided under this Agreement, other than for infringement of intellectual property rights.

Six Feet Up shall promptly notify Client in writing of any third party claim or suit and Client shall have the right to fully control the defense and any settlement of such claim or suit.

Rights & Ownership

(a) The technologies Six Feet Up integrates and builds upon are open source. Six Feet Up shall be able to release portions of the work specified in this proposal back to the open source Community, especially in the case of a generic product that is not specific to Client's needs and may be leveraged by other organizations. This code will be hosted on Six Feet Up's public Subversion repository for anyone to download (read-only access) once the project is complete.

Client's project specific code (e.g. template skin) shall be made available only to Client. The code will be hosted on Six Feet Up's private Subversion repository until the project is complete. Then Six Feet Up may give Client a dump of the Subversion repository for Client to import into their own repository.

During the development of the project, Six Feet Up shall give Client a read and write access to both the public and private repositories so that Client may modify the code at their leisure and in coordination with Six Feet Up.

(b) All right, title, and interest in the website content shall be assigned to Client.

SECTION III: BUDGET AND TIMELINE

ESTIMATED DEVELOPMENT BUDGET

Six Feet Up believes in empowering our clients during the development process by providing flexibility over the scope of the project. Thus we are proposing a Time and Materials service agreement including up to 570 hours, with the hourly rate for consulting services established at $95.

This will give the project some flexibility to adapt to changing circumstances without having to negotiate new pricing each time a change arises. This will also allow Six Feet Up to propose technical changes that will result in feature enhancements and improvements in the event that new open source products get released during the development timeframe.

Milestones	Est. Time
Milestone 1 • Pre-development work • Design work • Implementation of Generic Templates	**102 hrs**
Milestone 2 • Development of the PeopleList functionalities • Development of the Person object • Development of the Paper object	**334 hrs**
Milestone 3 • Setup of the Membership Management functionalities • Development of the Meetings object	**99 hrs**
Milestone 4 • Post-development work (training and documentation) • Deployment to Client's production environment	**41 hrs**
Total	**576 hrs**
Hourly Rate	**$95**
Estimated Budget	**$54,720**

ESTIMATED HOSTING BUDGET

Six Feet Up offers to host the client's website. Otherwise, the client understands that they will need to sign a separate contract with a Hosting Provider of their choice. The client then agrees to select a Hosting Provider that allows Six Feet Up full access to the web site. The client further understands that if the Hosting Provider's operating system is not a supported platform and doesn't run the Zope Application Server, the website will not function properly.

Six Feet Up's hosting plans are detailed at: http://www.sixfeetup.com/hosting/plans-and-fees

Recommended package for Client:

Spruce Goose Plan ..... $119/month (*)
* 10GB disk space ..... included
* 500MB Active RAM ..... included
* 40GB bandwidth ..... included
* Unlimited domains ..... included
(*) A one-time $80 setup fee applies.

Payment Terms

- Payment for development services is due 10 calendar days after Six Feet Up's submission of monthly timesheet;
- Payment for hosting services is due monthly.

Assumptions

This proposal is based on the following assumptions:

- The estimates provided in this proposal are based on the Planning and Discovery phase deliverables, namely:
  - Wireframes v3.1 dated 5/16/08 (see Annex)
  - Technical architecture diagram v7.1 dated 5/21/08 (see Annex)
  - Site Map v3.0 dated 5/20/08 (see Annex)

  The estimates provided in this proposal are subject to change based on Client's final design and functional requirements;
- Contract will be signed by May 27th, 2008
- Client will provide feedback on submitted work within 24 hours
- Collateral, photos, logos and graphics will be provided by the Client;
- All copy content will be provided by the Client;
- All text files will be provided in electronic form;
- Flash development work is not included in this proposal;
- All photography will be provided by the Client. Therefore, original or stock photography, image research and photo rights are not included.
- Six Feet Up will retain the right to publish or show any work completed in this project for portfolio promotion.
- The following features/functionalities are NOT included in this proposal:
  - Mass-email functionality allowing ITSOC to easily email participants in a specific PeopleList folder (ITSOC will keep using Mailman for now);
  - Talk/Lecture content type;
  - Meeting content type more elaborate than what is proposed on Wireframes v3.1;
  - Newsletter content type (ITSOC will use a standard page or file type);
  - BibTex or LaTex support;
  - Conference/Workshop type (we are assuming conferences are basic folders containing subfolders, pages and files);
  - Integration with IEEE Explore bibliographic data (ITSOC will rely on manual linking for the time being);
- Both the Tutorial/Review Articles and Dissertation Abstracts will use the same Paper content type
- Migration of existing content beyond the creation of the site's basic structure is not included in this proposal

ESTIMATED TIMELINE

A detailed roadmap will be developed in coordination with Client upon signing of the contract. The following timeframe is provided as a rough estimate:

Signed Contract ..... Start of the project

Completion of Milestone 1 .....4-5 weeks

Completion of Milestone 2 ..... 8-11 weeks

Completion of Milestone 3 .....2-3 weeks

Completion of Milestone 4 .....1 week

Estimated Project Timeline ..... 15-20 weeks

Note: Timeline based on the assumption that Client will provide feedback on submitted work within 24hrs.

SECTION IV: ACCEPTANCE

Six Feet Up will retain the right to publish or show any work completed in this project for portfolio promotion.

The information provided in this estimate is valid until 5/27/08.

Your signature below indicates acceptance of this proposal and its terms.

Six Feet Up, Inc.	Client
By: Gabrielle Hendryx-Parker	By:_____
Its: President	Its:_____
Date: 5/21/08	Date:_____

Please sign and fax to:
Six Feet Up, Inc.
Gabrielle Hendryx-Parker
(775) 295-6925

CONTACT INFORMATION

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Project Manager
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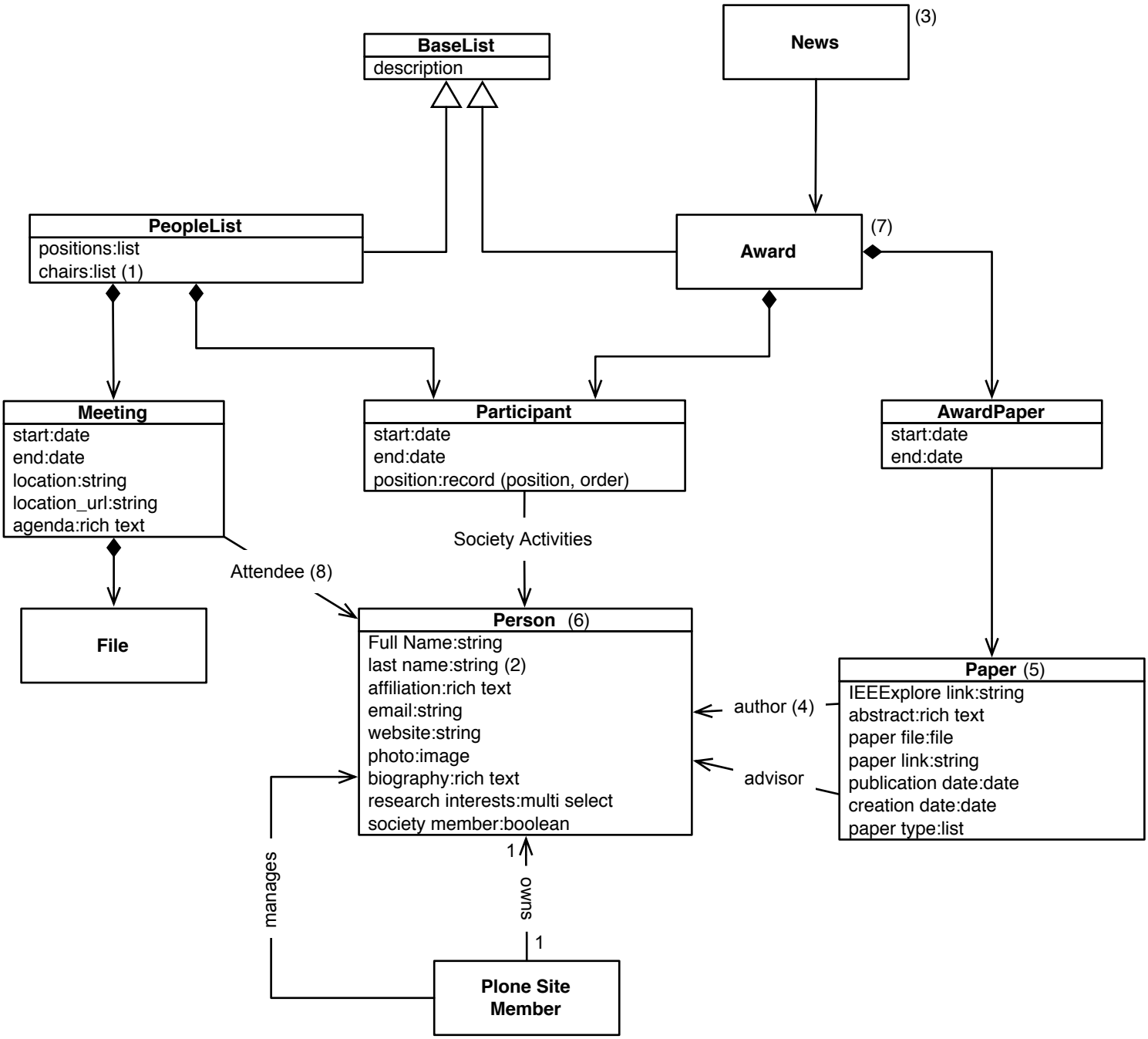
ANNEX

- Wireframes v3.1 dated 5/16/08 are available at: http://extranet.sixfeetup.com/IEEE/wireframes-05162008/
- Technical architecture diagram v7.1 dated 5/21/08
- Site Map v3.0 dated 5/20/08

IEEE IT Society Website Architecture Diagram v7.1
Six Feet Up, Inc. - 5/21/08



(1) Chairs will be a list of the positions that are considered the Managers of this item. All other active Participants are considered just "Contributors". Any other plone site members can be given administrative access via the sharing tab.

(2) last name is for sorting

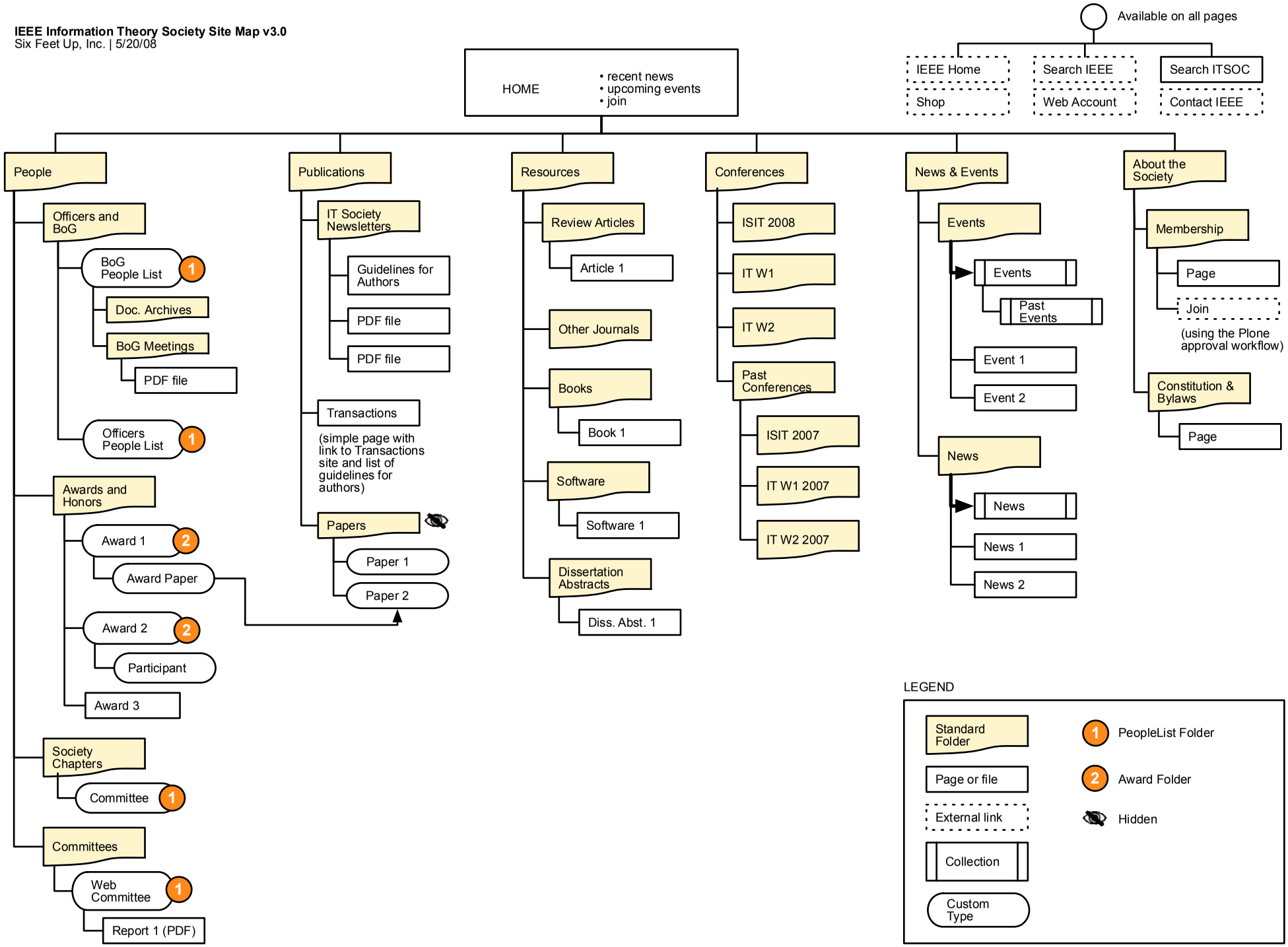
(3) Manually added News Item with optional manually added Related Item link

(4) All authors must be 'Person' objects in the system

(5) The 'Paper' object will be used for published papers, review articles and dissertation abstracts

(6) The 'Person' object will be used for PeopleList' members, authors, students and advisors.

(7) Currently the award for chapter of the year will be a kupu page. Down the road this can be managed with an 'Award' object.

(8) There is a link between the Person and the meeting. This defines the attendees.

IEEE Information Theory Society Site Map v3.0
Six Feet Up, Inc. | 5/20/08