# IN THIS ISSUE

spring2000

## Articles, Features & Case Studies

51

# IN THIS ISSUE

*spring*2000

## Departments & Columns

11



Cover art by Doron
Krinetz features former
APMP CEO and CDI
Technical Services VP
Marianne Gouveia.

# VIRTUAL INNOVATION or
## just surfing around?

Ask ten people in our industry what is meant by "virtual," and you get ten different answers. Every answer appears to be true. Every answer is also outdated. Almost as fast as one can define the term "virtual," technology expands the bounds of its use.

Which of these things best defines a virtual proposal: Multimedia? Electronic? Unbounded? Digital? Web-based? Interactive? Rapid? Unpredictable? All of the above? Or, tomorrow's newest new thing? Some would argue there is no right or wrong answer.

The more relevant questions may be these: Is the industry well served? How is quality affected by new virtual technologies and other changes? What sacrifices are made to accommodate this speeding bullet of virtual change? Are virtual proposals better? Cheaper? Easier to manage? Or just different in their form? What can we do to stay ahead of the bullet?

We posed those questions to industry experts and seasoned practitioners. If answers were feasible, we captured them here. The mosaic that results is as much a journey as it is a method, or knowledge.

## Virtual Syntax

According to The New Shorter Oxford English Dictionary, virtual is defined as:

*"Capable of producing a certain effect or result; effective, potent, powerful…" Also as: "Computing. Not physically existing but made by software to appear to do so from the point of view of the program or the user…"*

According to the CMP web-site, www.techweb .com/encyclopedia, virtual is:

*"An adjective that expresses a condition without boundaries or constraints. It is often used to*

*define a feature or state that is simulated in some fashion. However, it has become such a fashionable computer word that it may be a prefix to 'virtually' any electronic concept or product without regard to the original meaning of the term."*

Of all the myriad definitions we uncovered, this last one rings most true. On one hand, the word's power is diluted through universal application. But its unbounded quality lends promise and excitement to all the things with which it associates. It acknowledges the dreamer within us and casts a spell.

## Cautious Exuberance

The danger for us when assembling this journal (in fact, for anyone working in the industry) is embracing these new and appealing technologies blindly. As Roger Dean points out in his column "Virtual Teaming: The Proposal Siren Song" (under Trends & Views), today's virtual proposal team efforts can seem like the voyage Ulysses guided past sea monsters disguising themselves as sirens. "To hear their song was rapture, indeed, but also certain disaster."

In Carl Dickson's review of Web technology and trends, our resident technologist plays a pragmatic optimist to Roger's voice of caution. When Carl advises us to "lead, follow or get out of the way," he does so warily, pointing out: "Entire industries that took decades to establish are being changed from top to bottom in months."

Patty Nunn helps us understand and navigate how electronic procurement has affected the government marketplace. In addition to charting the gov-

*more…*

Welcome From the Editor

ernment's many e-commerce initiatives and 'need for speed,' she gives us her perspective on an uncertain future—including a very hip list of "what's in" and "what's out."

Denise Rhea-McKenzie, the head of Litton-PRC Defense System's Virtual Private Network, shows us how one firm has realized significant cost savings and across-the-board efficiencies with a virtual approach to multi-proposal development.

NASA's Barry Jacobs, a developer of the electronic (online) handbooks used in grant procurements for both the National Aeronautics and Space Administration and the Department of Justice, provides us with important and helpful insights to this innovative and prescient Internet tool.

Eileen McFarlane gives us cultural insights and perspective on the development of virtual proposals in the international environment.

In a profile interview, we talk with Steve Shipley, CEO of Shipley Associates and the man most responsible for establishing APMP. This important founder has distinguished himself as leader of an $11 million proposal management services firm, as an avid practitioner of new and evolving technologies, and as a visionary

with important insights. His name is associated with some of the industry's most highly-regarded methodologies and tools.

And that's not all. We bring you Web-writing tips, book reviews, a list of favorite web sites, a Q & A with CDI's Marianne Gouveia, and a wonderfully written and illustrated architectural engineering services case study by Robert Miller.

Jayme Sokolow's piece on virtual pioneers reminds us that "virtual reality" is not just a concept of a new, technology-bound generation. Both fictional and real virtual reality systems have been widely used from time immemorial. From the trompe l'oeil frescos of ancient Pompeii to an artificial intelligence machine discovered by Gulliver in 1707 to more recent examples such as the baseball signs communicated as signals, Jayme takes us on a factual, historic, and light-hearted tour of some virtual reality phenomena and sites.

Your virtual intelligence will grow upon reading.
Ahead of the bullet, onward and upward!

Dennis
Managing Editor

# Gender &

# Initiative in a Virtually- Challenging Proposal World



spotlight
MARIANNE
GOUVEIA

**M**arianne Gouveia, whose image you see on the cover of this issue, is one of our industry's most visible and hardest-working leaders. In addition to her day-to-day duties as CDI Technical Services Vice President of Strategic Planning & Marketing, she is an active member of Proposal Management's Editorial Advisory Board, and a former APMP CEO (1997-99). CDI Technical Services is a worldwide provider of technical staffing and outsourcing solutions serving the high-technology industries. Marianne led the product definition and market launch for CDI's newly established Proposal Services business. Involving her in this issue's cover concept gave us an opportunity to talk to her about the changes and trends in our dynamic business.

**PM:** Many in our industry are encouraged to find more women like yourself in the senior management ranks of our profession. What advice might you offer to other women with similar aspirations?

**Gouveia:** I encourage women to gain as much knowledge and practical application as possible with the "business aspects" of their chosen field. It is not enough to just work hard and be the best. Rather, women who aspire to be in the top ranks of management must understand that companies are in business to make money. A demonstrated understanding and application of those principles, coupled with a strong professional network, provide a solid foundation for career growth.

Being a leader in your chosen field is serious business. Bottom line: "Top and Bottom Line Growth" is what matters. This means working long and exhaustive days, making tough decisions that are not always popular, and being willing to take substantial risks when doing what you believe is right. But before you begin climbing the proposal management career ladder, determine what you want to accomplish personally and professionally, then map out a plan to get there, and if you can find a role model, it will make your climb much easier.

Here are five simple points to remember:
- It is people who make good deals happen.
- You are as smart as your competitors.
- Never ignore an opportunity when it knocks.
- Never turn down an opportunity for training.
- Never compromise your personal values.

**PM:** Are the challenges for women in proposal management any different than the challenges presented for men, or have we evolved into a gender-neutral world?

**Gouveia:** I'll answer this question in two parts. First, in a diverse world, each of us accepts and handles challenges in our own way. There are many inherent issues and pressures in the proposal business that cross gender lines. Let's face it, a deadline is a deadline! What is critical is to focus on the skills that we each bring to the art of managing proposals: organization, communication, and strong inter-personal skills are all equally important traits that make for good proposal management. And most of all, during the proposal "crises" remember to have fun, respect one another, and enjoy the pizza.

Secondly, by nature, women have always been characterized as being exceptionally multi-task-oriented. We innately have the ability to do more than one thing at a time and do it well. On the other hand, with all due respect to my esteemed male colleagues, their strengths traditionally have been in product knowledge and

*more...*

# spotlight
## MARIANNE GOUVEIA

> "Never ignore an opportunity when it knocks. Never turn down an opportunity for training. Never compromise your personal values." —MG

their inter-personal relationships within the business community. Did you ever hear the term "good old boy network?"

So, to answer your question of whether "we have evolved into a gender-neutral world," I would have to say, probably not. And as a follow-up, the question might be asked, "Does one gender make better proposal managers?" Here again, the answer is probably not.

However, I do believe that corporate America has yet to fully understand how to optimize the creativity, skill, and know-how of each gender. In contrast, the proposal profession can be touted to have crossed those distinctions. Those skills and abilities necessary for good proposal mangement, coupled with the tenacity to persevere and overcome often insurmountable tasks, are found in both genders.

**PM:** As a Vice President within CDI's largest and most successful business unit and as a provider of proposal management services, what are the most dramatic changes that you have seen in recent years?

**Gouveia:** The constant changes that the Department of Defense implements with respect to the Acquisition Reform initiatives significantly influence the way we do business and will continue to do so in the world of procurement. As DoD budgets for major new weapons procurement continue to dwindle, the result will be more teaming, partnering, outsourcing of non-core processes, and continued campaigns in the international markets.

Another dramatic change that I have seen is the impact of a tight labor market across the entire business spectrum. And while this labor market condition is an employee's nirvana, it presents a whole new set of challenges for firms competing to satisfy their clients' demands for qualified help. If you have been following the e-jobs, e-recruiting, and the emerging free agent market, you can easily understand how dramatically the complexion of our profession is changing.

**PM:** Looking into your crystal ball, how do you imagine the future to be influenced by new and evolving technologies?

**Gouveia:** Years ago, companies could not have imagined the concept of desk-top computers, sharing network files, collaborative electronic workspace, or talking computers in our routine workday. We could not have imagined that computing power the strength of a mainframe could be packaged in hardware no bigger than your hand. Years ago, terms like Internet and e-commerce were unfamiliar. In the past five years, these terms have become part of our everyday language, both in the workplace and in the home. Only our imaginations can dare to reveal what the future may hold. Just ask yourself…what if?

Most of us know that graphics grab a reader's attention, and can translate concepts more easily than words. What if, instead of written proposals laden with graphics, technology allowed us to create a 3-D holographic image or computer-generated construct of our product offerings for technical evaluators?

What if relevant technical and management experience were presented via video resumes and accessed through a secure Internet connection, allowing companies to present their Program Manager and key team members' capabilities?

What if "best-in-class" practices from successful program launches were available via digital implementation?

What if intellectual capital could be applied to real-time business war games or seamlessly transitioned from the computer to the human being, or from the capture team to the program team?

This may all seem far-fetched, but some of you may recall Alan Greenspan's address to the nation last year when he stated, "the newest innovations on the Internet have begun to alter the manner in which we do business and create value in ways not readily foreseeable. By 2003, electronic commerce will be a staggering $1 trillion market."

I encourage business to think about the limitless possibilities and find creative ways to improve their abilities to move quickly, capitalize on technology, and create unsurpassed market value in their market space."

**PM:** What in your experience as an acquisition professional most often separates a winner's mindset from those who have lost?

**Gouveia:** No matter what profession you are in, you have to be a team player to win. You have to develop the mindset of a "winner" in each team member. Having the most "technically sound" or the "lowest cost" product is only half the battle. What matters is embracing the total continuum of value—from the customer's perspective, your company's perspective, your teammate's/partner's perspective, and even the shareholder's perspective. Combine that with an early start and leadership that is committed to winning both qualitatively and quantitatively, and winning is almost a sure bet.

**PM:** Do you have a favorite saying?

**Gouveia:** Yes, it's a quote from Indira Gandhi, Prime Minister of India (1967-71). I gleaned this from a leadership development program years ago, and it has stuck with me throughout my career: "I suppose leadership at one time meant muscles, but today it means getting along with people." People, with clear vision, solid leadership, and the tenacity to plow forward, can accomplish nearly any goal.

# Members Share
# Their Favorite
# Web Sites

**D**iversification is a membership trait, and the varied interests in Proposal Management's ranks is reflected in their choice of favorite web sites. Here is a sampling.

**Favorite Site:** HistoryNet
(www.historynet.com)
**Why:** Articles on history (my hobby is to read non-fiction). This site provides the best articles and information.
**From:** *Paul Giguere, Proposal Development Coordinator, Anthem Blue Cross and Blue Shield (New Hampshire)*

**Favorite Site:** The Motley Fool (www.Fool.com)
**Why:** Excellent investing advice and education
**From:** *Michael Crook, Sr. Proposal Specialist, Honeywell*

**Favorite Site:** Yahoo! Finance
(http://finance.yahoo.com/)
**Why:** It always has the latest information about companies.
**From:** *Sherrill Necessary, Director, Business Capture Processes, Boeing*

**Favorite Sites:** (1) Copernic (Search Software), tied with (2) Levenger – Tools for Serious Readers
(www.copernic.com and www.levenger.com)
**Why:** Copernic is about the best search engine software around and its free. Have used it extensively to find info/sites on technical terms, processes, companies, narrow shoes, published documents, products - basically anything and everything. Levenger is a favorite because I am a sucker for great writing and related tools and products, and they have some good ones (plus, they deliver). For example, you can get wonderful colored highlighting pencils that are erasable!
**From:** *Sarah E. Dunham, Sr. Proposal Manager, Computer Sciences Corporation*

**Favorite Site:** Washington Post (www. washingtonpost.com)
**Why:** It keeps me in touch with what is happening in Washington, DC, and has lots of features (including chat rooms).
**From:** *Frederick C. Hines [Former APMP CEO], Client Representative, IBM Corporation*

---

**Have a site you'd like to share?
Just let us know in time
for the next issue.**
*— Editors*

---

**Favorite Site:** Lockheed Martin (www.lmco.com/)
**Why:** Provides the best stock photography on a variety of technology applications.
**From:** *Arthur Harland, Proposal Group Production Specialist, Anteon Corporation*

**Favorite Site:** Any of the Afghan Hound Links. (such as: http://ourworld.compuserve.com/home-pages/s_tillotson/menu.htm)
**Why:** I am hopelessly in love with my pedigreed show dog and really only bookmark Afghan sites and Spanish technology sites!
**From:** *Nancy Brome, Anthem Blue Cross and Blue Shield (New Hampshire)*

**Favorite Site:** National Contract Management Association (NCMA) (www.ncmahq.org/)
**Why:** It's well organized and understands its customer base.
**From:** *David Sotolongo, Research Triangle Institute.*

**Favorite Site:** Stick Figure Death Theatre (www.sfdt.com)
**Why:** It allows me to fantasize about killing members of my proposal team ... (It's actually a very funny site.)
**From:** *David Sotolongo, Research Triangle Institute*

**Favorite Site:** ProFusion (search tool) (www.profusion.com)
**Why:** Searches multiple engines at once and turns up some interesting material.
**From:** *Kate Rosengreen Davis, Ph.D. student and consultant in government health and benefits.*

**Favorite Site:** CNN.com (www.cnn.com)
**Why:** It allows me to keep up-to-date on what's happening in a number of subjects throughout the world.
**From:** *Steve Shipley, CEO, Shipley Associates*

**Favorite Site:** Amazon.com (www.amazon.com)
**Why:** Ease of use; ease of ordering; and level of information security
**From:** *Robert S. Frey, Director, Knowledge Management and Proposal Development, RS Information Systems, Inc. and Christine Benedetto, Proposal Specialist, Anteon Corp.*

**Favorite Site:** KnowledgeNet (www.knowledgenet.com)
**Why:** From a design standpoint, it displays great use of text and is very clean and compact. From a tech view, it is a great use of FLASH 4.0.

**From:** *Doron Krinetz, Creative Director, CDI Technical Services [and Cover Artist, Proposal Management]*
**Favorite Site:** CEO Express (www.ceoexpress.com)
**Why:** It has a wealth of information in a variety of interesting topics conveniently located right at my fingertips. Plus it's easy to use.
**From:** *Nancy Cottle, Director Strategic Programs, CDI Corporation*

**Favorite Site:** Public Broadcasting Corporation (www.pbs.org)
**Why:** It has a information on the arts, nature and wildlife, science and technology, travel, business and finance, etc. as well as a link to the news.
**From:** *Linda Mitchell, Proposal Manager, Sprint*

---

## What's Next

# FOR PROPOSAL MANAGEMENT
### **FALL**2000

### *The Magic of Metrics*

Our Fall 2000 issue will feature articles on the mystical confluence of performance measurement (metrics), quality, value, and return on investment. Our authors will bring us experience from both the corporate and government perspectives. What is important to track and measure? What criteria make tracking beneficial? What are the lessons learned from practitioners? How has the knowledge gained from metrics changed performance, priorities, and the ways that companies work? These are the questions we're asking the experts. Feedback and intelligence have never been of more importance for companies that want to win.

Rounding out this and subsequent issues, we're also pursuing the following topics. Your participation can help to make our future issues better. Consider this a call for papers—a special invitation to you.

#### TOPICS TO COVER IN FUTURE ISSUES
(And YOU Can Participate!)

Recent surveys have highlighted an interest the topics listed below. We are looking for subject matter experts, project leaders, and enthusiasts willing to write articles/ reports on these topics for upcoming issues. Please let us know if you, an acquaintance, or someone you admire can help us in any area.

Note: The subjects and order reflect a recent survey of member preferences on topics they would like to see addressed in the journal.
1. COMMERCIAL PROPOSALS — Case studies and trends.
2. KNOWLEDGE-BASED RESOURCE MANAGEMENT — Managing, promoting and proposing services and products that are increasingly intangible and knowledge-based.
3. PROPOSAL MANAGEMENT SALARIES/INCOME/CAREER PATHS — Research, experience, case studies, and self-help advice.
4. PRICE PROPOSALS — Collecting intelligence, evolving strategies, organizing data, communicating value, correlating with technical approaches, and how to win when you're not low price.
5. THE PROPOSAL MANAGEMENT INDUSTRY — CONSULTANT ALLIANCE — Advantages, challenges, potential conflicts, contracts and balance in the pairing of companies and "hired guns."
6. MEN AND WOMEN OF PROPOSAL MANAGEMENT — Research, case studies and lessons for ensuring that opportunity is gender-neutral and equally available to all.
7. PROTESTS AND POST-MORTEMS — Protest procedures, case studies, history and lessons to be learned.
8. MARKETING INTELLIGENCE — How to manage and overcome the trend away effective marketing intelligence. How significant is the problem? What should be done?
9. INDUSTRY-GOVERNMENT PARTNERING TO STREAMLINE PROCUREMENT — Case studies, trends, recommendations, lessons learned.
10. MANAGING THE PROPOSAL PROCESS — New views on methodology, work space effectiveness, personnel selection, reducing contractor arrogance, demonstrating customer understanding, and related concerns.

To discuss a possible article topic, submit an article, or refer a subject matter expert, please send an e-mail or contact us at the addresses below. Thank you.

R. Dennis Green, Managing Editor, e-mail: RDenGreen@aol.com, Phone: 301-469-2777
Dr. Jayme A. Sokolow, Editorial Advisory Board Chair, E-mail: Jsoko12481@aol.com, Phone: 301-933-3989

---

# Virtual Teaming–

# The Proposal Siren Song

**By ROGER DEAN**

In ancient, mythical times, Ulysses undertook a lengthy journey that was full of both opportunity and risk. Toward the end of the voyage, his men grew anxious to get home. However, sea monsters disguised as attractive Sirens to lure unwary sailors to their doom guarded the route home. To hear their song was rapture, indeed, but also certain disaster. The goddess Circe warned Ulysses of the dangers along the way and told him how to avoid disaster. He and his men were to plug their ears with wax. But Ulysses longed to hear the Sirens' song for himself and so, instructed by Circe, he removed the wax from his own ears and instructed his men to lash him to the mast. They were not to untie him until they were well past the danger, no matter how much he pleaded. Thus he was able to hear the Siren song so he could warn others of this danger, yet still lead his men home safely.

Every proposal is a similar journey. It is a concerted effort of a team of people working towards a desirable goal. In the

*more...*

face of today's pressures of reduced budgets, diminishing resources, and ever-shorter response times, company executives find themselves searching for every edge to save manpower, time, and money. And, like Ulysses' Odyssey, today's proposal journeys are not without their own Siren songs. The concept of "virtual teaming"[1] is one such siren song, offering many benefits to companies and proposal teams alike, but also posing many risks that can lead to proposal disaster. Only by understanding these risks and learning how to prevent them can today's proposal Ulysses reap the benefits of virtual teaming and safely lead a proposal team to the successful, efficient, and low-cost proposal they all desire.

## The Sirens' Dangers

The siren song for virtual teaming is powerful and seductive, such as: "My people won't have to be full time on this proposal; they can do their 'real' jobs too. They'll be more productive in their own areas with all their normal tools available to them. I can get more people to contribute to the budget" or "I can save my travel budget for really important things." Sweet music, indeed, to executives seeking to squeeze every bit of efficiency from scarce bid-and-proposal (B&P) funds. But just like Ulysses and the Sirens, when it comes to virtual teaming the unwary court almost certain disaster.

Over the years, I have been involved with a number of attempts at virtual teaming, some much better than others and some much worse. However, I have learned the hard way that the costs of rushing into virtual teaming or blindly relying on untrained or overworked people using unfamiliar technology to save a few B&P dollars can be very high. These are the dangers of a virtual proposal team that you will encounter, if you do not take the time and effort to prevent them before they occur.

- Time cost — Unless your entire proposal team is online all the time, sitting at their computers waiting for input and questions from other team members (and proposal team members should have lots of questions), communications will take more time than if you were all working in the same place. If you are not careful, you will find you have traded real-time processing of information for batch processing. It is almost like reverting to the old punch card batch processing approach in the computer dark ages!
- Synergy cost — Like time costs, synergy costs come from lack of spontaneity and real-time interaction. The give-and-take of

face-to-face interaction is replaced by the scheduled, more structured interaction of the virtual team. And while only some in a collocated environment can listen to the activities in the general area while still doing their own work, virtual collocation ensures that no one will be able to listen. What the synergy costs of virtual teaming mean is that you end up with far fewer opportunities for ad hoc brainstorming.
- Miscommunication cost — Most implementations of virtual teaming force participants to rely on a single mode of communications at any one time—a fax, a telephone call, a voice mail message. And most of us, whether we like to admit it or not, are poor communicators when limited to a single mode. We rely on the mixing of various signals, including feedback and interaction, to prevent or correct misunderstanding. Even when the message is delivered clearly, communication is a two-way process and the reception can be faulty. Not only is miscommunication costly in its own right, its overall costs to the proposal are exacerbated by the time costs. Instead of synergistic benefits, you get compounded costs.
- Noncommunication cost — A close relative of miscommunication costs, "noncommunication" occurs when people are overwhelmed by the sheer volume of electronic communications and simply stop responding. One manifestation of this is the e-mail avalanche cost. This happens when key people are so inundated by e-mails that they only read them in batches at sporadic intervals. It can culminate in the e-mail vaporization cost, when someone declares defeat and simply deletes large blocks of unread e-mails. (On one proposal I worked on not long ago, a key manager surrendered one Monday morning when he found—and deleted unread—345 e-mails!)
- Accountability cost — There is a good reason the saying, "Out of sight, out of mind," is so popular. It is extraordinarily easy for many people to relegate even important tasks to second or third priority if all they get is a phone call or e-mail reminders. There is nothing quite like having to stand in front of your peers and management at a morning meeting and say you missed your deadline!
- You-work-for-me-first cost — A close cousin to the accountability cost, this one happens on all proposals but is even harder to control with virtual collocation. We have all experienced this: Rather than working in the proposal center, you are sitting quietly in your office or cubicle, diligently working on a proposal section. You are an easy target to find when your boss

---

[1] The exact definition—if there is one—of "virtual teaming" is unimportant to this column. But given the broad misuse of the concept these days, it is probably appropriate to define what I mean by the term. To me, a virtual team exists any time a group of people work toward a common goal without extensive personal interaction. Sometimes it is called "virtual collocation." Key characteristics of virtual teaming include team members working in disparate locations (no matter whether around the globe or in the next building), a primary reliance on electronic communications, and few (if any) face-to-face meetings.

wants something done. "Could you do something for me? I need this done now and it will only take you a few hours." Whether intentioned or not, you have just been told that: What I want is more important than the proposal. You work for me first and I do your appraisal.

So you decide to keep your immediate boss happy and let the proposal section slide a bit. While this may do wonders for your relationship with your boss, it does little to help the proposal team.

- Facilities and equipment cost — You learn about this cost when you try to add someone new to your virtual proposal team. You learn who really runs the show at your company when you cannot get this new person a phone or e-mail account, or can not connect them to the network. You also discover that you cannot connect departments that normally work on different servers to your proposal server, so not everyone on the team can access common information. No connection to the communications grid, no virtual team! Other faces of this cost appear when your Mac won't talk to my PC, or the network goes down at a critical time. None of these things should happen, but they do happen – all of them.
- State-of-the-Art cost — As much as we might wish otherwise, there are really three separate definitions of "state-of-the-art." There is the theoretical state-of-the-art that is the sole realm of sales people, snake-oil vendors, and dreamers. There is the practical state-of-the-art that belongs to design engineers working on fixed price contracts. Finally, there is the applied state-of-the-art for the rest of us who actually have to make the stuff work on a day-to-day basis.

  "So what's the big deal," you ask? Consider, say, the Net Meeting feature in Microsoft® Windows 98. It is nearly ubiquitous today yet it surely qualifies, at best, as practical state-of-the-art rather than applied. How many people do you know who even know that this feature exists, never mind know how to use it? Or actually do use it?

  What are the implications of these various definitions of state-of-the-art? Pick the wrong one for your virtual teaming—any one but the applied state-of-the-art that encompasses the tools people actually have and use—and you will compound just about every other cost!
- Leadership cost — Unless you have a truly exceptional leader, a virtual proposal team is often leaderless no matter how hard the titular leader tries. It has been said that vision is the very essence of leadership. Even under the best conditions, team leads can find it difficult to communicate a clear vision for a proposal and use that vision to motivate the team. Since both leadership and motivation, particularly on difficult jobs, must be continual rather than sporadic, remote collaboration can present great barriers to establishing a communal sense of teamwork and focus on common purpose.

"But," you might argue, "all these risks can be overcome without physical collocation." Of course they can, but only through two techniques: 1) Solve them after they occur, which takes time, and time is usually something in very short supply on proposals, or 2) Prevent them from happening in the first place. The second choice is, of course, the best solution. Look at what Circe, if she were around today, might tell a proposal Ulysses about how to avoid the disasters awaiting him.

## What Circe Might Say…
### How to minimize the risks and reap the benefits of virtual teaming

Today's proposal managers need not lash themselves to the mast. There are lots of ways to prevent virtual teaming problems and ensure that the today's communications tools fulfill at least some of their promises. A small handful of these techniques are surprisingly straightforward and, like the risks of virtual teaming, they are all things learned through practical experience. To avoid being trapped by the proposal Sirens:

1. **Be realistic in your assessment of resource requirements.** Ensure that everyone—management and contributors alike—understands that proposals are real work and that they require some level of resources beyond the spare time of one or two "available" people. Not all proposals require the same level of resources, but they all take some minimum level.
2. **Only choose people for your team who actually have the time to work on the proposal.** If you are the proposal manager, take the time to talk to prospective team members' supervisors and assess their understanding of your proposal needs. Sometimes someone who might otherwise be "second best," but who can dedicate adequate time, is much better than the first choice who is too busy to help.
3. **Begin early to develop a sense of teamwork among all participants,** so that people can work effectively in what may be the unfamiliar virtual teaming relationship. In all cases, it takes time to establish an effective team. "Under the gun" is not the time to do this. As Lilly Platt, president of Legato Consulting and a contributor to Home Office Computing magazine, notes, "[Virtual] groups find communicating more complex, and developing good working relationships may take longer."
4. **Bring all key people—core team members and primary contributors—together at regular intervals to reinforce the team concept.** The longer the pursuit effort, the more team meetings you will need. But certainly the one at

*more...*

the start should not be too much to ask of everyone on your team. Again, from Lilly Platt, "To be successful, virtual groups need to trust each member to do the best job possible without direct supervision." (One important element of this idea of bringing key people together regularly is making sure you can distinguish between core team members and contributors. Regardless of the proposal, there are always some people who never need to participate in person.)

5. **Schedule frequent and regular virtual meetings.** Daily meetings are a good idea for collocated teams and they are a good idea for virtual teams as well. Make "attendance" mandatory, even if some people do not feel they have anything to contribute. Even those who do not bring anything to meetings often take something away. An important corollary to having frequent virtual meetings is: do not be reluctant to hold "non-virtual" meetings when necessary.

6. **Assign someone responsibility for ensuring good team communications.** The more you depend on distance collaboration, the more important it becomes. You might consider bringing on someone who specializes in facilitating virtual teams; such consultants do exist and they can be very helpful. Charge your proposal coordinator with responsibility for facilitating timely and effective communications. This might include tasks such as making sure your address lists are current, that things like incoming faxes actually reach their recipients quickly, and reminding people about meetings (both real and virtual).

7. **Plan ahead!** Identify your virtual teaming needs in advance and make sure that whoever controls the resources you need can support you when the time comes. When the clock is ticking toward the proposal deadline, it is no time to learn that the only person who can authorize a network connection is on vacation for three weeks.

8. **Learn both the features and the limitations of the virtual teaming tools you plan to use.** As noted earlier, not every tool works exactly the way the salesman says it will. Do not expect any tool to do more than it is capable of doing. This goes for people, too. Learn whether or not your virtual proposal team members know how to use the tools that they have, regardless of whether you are going to use simple faxes and e-mail or the most sophisticated groupware on the planet. There are still lots of people in companies who can not use even the simplest of electronic collaboration tools, such as the "Track Changes" feature in Microsoft® Word, and they are reluctant to admit it! Along with this, take the time to learn who on your proposal team is likely to be a problem regardless of his or her best intentions, then find a way to work around the difficulties this person will have. Experience shows there is always some-

one like this on every proposal team.

9. **Establish and maintain good proposal discipline.** Regardless of your corporate culture, work environment, or organization, insist that people on the team fulfill their now-reduced obligations on time. Make certain that everyone understands their assignments by ensuring that task assignments meet the three essential criteria for success: measurable (define a specific objective), schedulable (set a firm date and time), and accountable (make only one person responsible). Insist that your team members take the time and effort to produce a quality product the first time, not simply provide "fodder" until they can get serious about it. And ask everyone to be especially precise and accurate in their communications.

## Commitment… the Real Answer

When you think about this list, you will most likely recognize each one of these keys to a successful virtual team. They are, after all, the keys to just about any successful proposal! The only difference is that with virtual teaming they are much more important. What it really amounts to is that the underlying, pay-me-now cost of successful virtual teaming is commitment: commitment to success at all levels of your organization, and the recognition of realities that come with such a commitment.

Good proposals under any circumstances demand hard work, careful planning, and resources commensurate to the team's skills, experience, and expertise. Modern communications tools are not the panacea for every manager's need to save money. As National Public Radio's Susan Stamburg quipped in an interview with economist Milton Friedman, "Everything free comes with a price." By recognizing that effective, efficient, successful proposal teams in today's business world are, most often, compromises between the two ideals of collocation and virtual teaming—and by recognizing that, whatever the nature of your solution, you must have a commitment to success—you can join the ranks of companies who have made virtual teaming a success. Ignore this basic rule and you may find that you have been lured by the Sirens, and that your proposal vessel lies wrecked on the shoals of good intentions.

Roger Dean is Managing Partner of Engineered Proposals, a proposal and program management services company established in 1987. Roger and his associates help defense, industrial, and commercial organizations pursue business opportunities. Roger can be reached at RogerDean@aol.com or through the EP Web site, www.proposalhelp.com.

# Federal Electronic Procurement, Past and Future:

## Feeding Our "Need for Speed"

*by PATRICIA A. NUNN*

**C**hanges occur with a bullet's speed. Electronic procurement is a moving target and has changed very rapidly on the federal level over the last decade. Although changes have been uneven from agency to agency, all government agencies are likely to use electronic commerce more frequently and more effectively in the future.

### The Electronic Procurement Model

Terms related to technology-based procurement tend to cause confusion. The term electronic procurement defines the many uses of technology to streamline procurement efforts, specifically for competitive, negotiated federal government contracts. *Electronic commerce* (EC), as defined by the federal government[1], means electronic techniques for accomplishing business transactions, including electronic mail or messaging, World Wide Web technology, electronic bulletin boards, purchase cards, electronic funds transfers, and electronic data interchange. Consider EC as a global term and electronic procurement as a term that applies to large procurements. On the federal level, many government agencies are now moving toward *virtual proposals,* computer-generated documents that range from texts to complex simulations with audio, video, animation, and three-dimensional graphics.

The electronic procurement model, illustrated in Figure 1, shows seven primary acquisition process areas. Over the past decade, technology has been applied to each of the areas in an

---

attempt to streamline the total federal acquisition process. Now there are many opportunities to use technology in each area, but few government programs have integrated all seven areas. Be prepared to adjust your proposal generation methods, because it is only a matter of time before all areas of this model will be addressed by federal agencies.

## The Trend—Constant Change
### Change is constant and improvements abound!

Improvement, by definition, requires change. Sometimes that change is forced through acquisition policy; at other times, a change is driven by an energetic, forward-thinking procurement professional willing to go that extra mile to improve his or her environment. Over the years, we have watched the federal acquisition community change its processes to improve its practices. There is always room to improve, and change will always be necessary.

The 1990s were a great time for those of us who love change and could keep up with the tremendous improvements to the procurement environment. Figure 2 illustrates the primary technological changes over the past decade that have had a dramatic impact on electronic procurement methods.

How easy it is to forget the electronic bulletin board system of the early '90s. Contractors would dial in and download. The size of documents and speed of modems forced the acquisition world to move to the Internet. Bulletin boards are a technology of the past.

In 1992, the federal government became interested in elec-



FIGURE 1: Electronic Porcurement Model

tronic versions of printed proposals as a way to use electronic source selection or to more efficiently archive winning proposals. Industry challenged this request with complaints about security concerns, platform standardization issues, large document size, and the cost of new technology (such as CD-ROM burners). Thanks to standard file viewers (e.g., Adobe Acrobat) and the rapid influx of CD-ROM burners into the market in 1992, these challenges disappeared. Electronic submission of written proposals had become very popular by 1995.

Advancements in Internet security by late 1997 enabled many agencies to leverage the benefits of Web-based solicitations, proposal submission, evaluation, and award processes—the total procurement EC environment.

While the federal government has rapidly advanced, industry has advanced even more rapidly, staying one year ahead in the implementation of information technology to improve its proposal processes. The collaborative, virtual proposal center, first released as a commercial product by Intravation in 1994, has become an efficient and effective way to manage proposals requiring resources worldwide.

## Government Customer Perspective

Procurement professionals continue to respond to a reduction of resources, changing legislation, technology improvements, the need
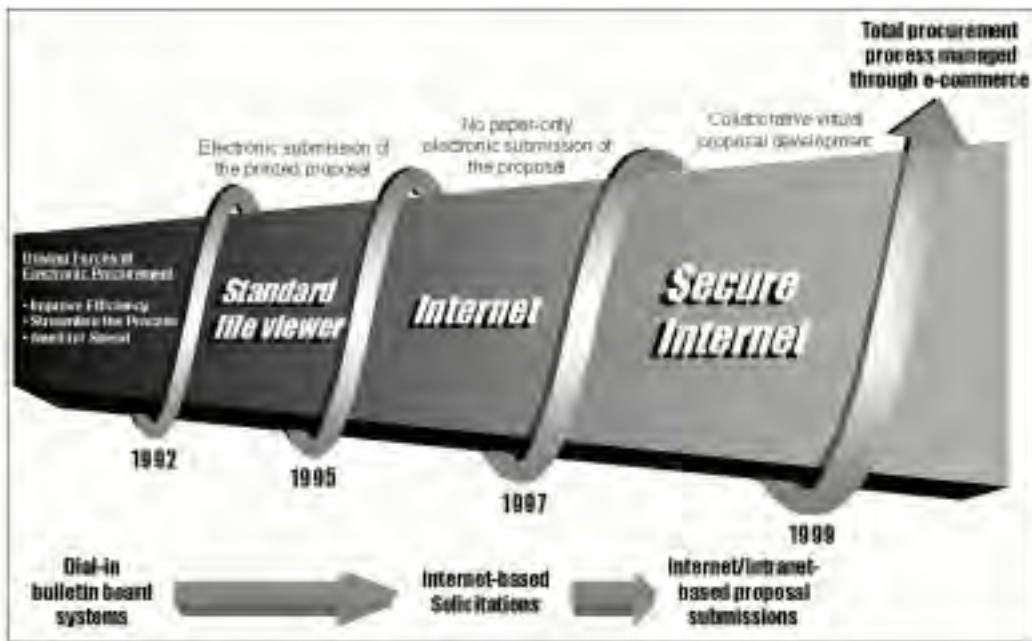


FIGURE 2: Past Decade of Technology and Electronic Procurement

for speed, and internal competition. Reduction of resources will continue to plague federal procurement agencies as experienced procurement professionals move to industry.

Changing legislation in the past decade, particularly the Federal Acquisition Streamlining Act of 1994, has had a major impact on procurement practices and initiated dramatic changes in how procurement professionals performed their jobs. As legislation changes, each agency must interpret the law, train its procurement personnel, and implement new policies and processes. As we have all recognized, there is a large variance in implementation practices among agencies.

Federal procurement offices have also moved forward to implement technology improvements to increase efficiencies. Almost all federal agencies are now posting their information on the Internet. Most procurement professionals are avid users of e-mail to accept information (i.e., questions, intent to bids, etc.) from their prospective bidders. Several agencies' Web sites are advancing EC and continuing to improve the acquisition process. At some point in the near future, the Department of Defense Standard Procurement System (SPS) will integrate many legacy purchasing systems for complete EC systems.

It has been challenging to keep up with the advanced progress of procurement sites across the federal government. Using the electronic procurement model introduced earlier to compare agency Internet sites, it is interesting to note that most sites have addressed several process areas, but not necessarily in a logical order. Figure 3 reviews the capability of several key federal procurement sites and describes functions that are currently

*more...*

---

## Advanced Procurement Internet Sites

**CBDNet**　　　　　　http://cbdnet.access.gpo.gov　　　　　　**Areas 1, 4\***

This site is managed by the Department of Commerce and Government Printing Office. It provides an electronic version of the Commerce Business Daily that lists all federal government procurement actions. CBDNet enables procurement agencies to electronically post solicitation information and enables industry to search the notices. Expect enhanced technology at this site within the next few years.

**Electronic Posting System**　　　　　　http://www.eps.gov　　　　　　**Areas 1, 4\***

Managed by the General Services Administration, this site started as a pilot project to provide a common "one-stop" electronic search and identification of government business opportunities. It now provides the federal government with an EC framework, allowing flexibility in deployment and interconnectivity to agency systems. This site posts acquisition-related documents for agencies, automatic e-mail notification for interested vendors, and provides many ways to search the site. This site provides the links to primary Web sites, so it is unlikely that proposals will be uploaded through this site. The government has planned the following initiatives for this site: move EPS to commercial internet service provider, enhance user interface, provide FTP ability within EPS, and add archiving capabilities.

**Interagency Interactive Business Opportunities Page**　　https://abop.monmouth.army.mil　　**Areas 1, 2, 4\***

This site is managed by the Department of the Army, but also supports procurement links to DOC, USA, SOC, DOE, SD, and SPAWAR. It provides a standard posting method and an easy-to-use proposal submission process. Bidders must have Internet Explorer (Version 3.1 with patch or Version 4.01) to upload or edit proposal forms or attachments once the information has been submitted. All users must register to perform secure searches, register for automatic e-mail notification, or upload proposals. The future of this Web site is uncertain due to the implementation of the Standard Procurement System.

**Preaward Information eXchange System (PIXS)**　　http://www.pixs.wpafb.af.mil　　**Areas 1, 4\***

This site is managed by the Acquisition Support Division, ASC Contracting Directorate, and the 88th Communications Group at Wright-Patterson Air Force Base. PIXS has been accessed more than 195,000 times since January 1, 1997. The site provides a standard solicitation posting method and offers several document formats (Adobe Acrobat and MS Word). Users may register for automatic e-mail notification for solicitations that are active. Solicitations currently posted under PIXS will likely move to the Standard Procurement System in the next few years.

**IT Solutions Shop (ITSS)**　　　　https://it-solutions.gsa.gov　　　　**Areas 1, 2, 3, 4, and 6\***

The General Services Administration manages this site. After several years working with its predecessor, the Electronic Task Order (ETO) System, many user problems have been addressed. ITSS provides a world-wide secure Internet interface to GSA clients and industry partners supporting FISSP, FAST, ANSWER, and other contracts. Electronic notification of procurement activity, detailed solicitation requirements, proposal submission, and award notification enable rapid turnaround of task order procurements. Rapid turnaround means that many acquisitions occur in less than two weeks from start to finish. Industry Program Managers running large GSA contracts spend an average of two hours per day monitoring contract activity, uploading deliverables, downloading requests for quotations, and uploading proposals. Hundreds of procurement e-commerce transactions occur on this system daily.

FIGURE 3: Advanced Procurement Internet Sites　　　　　　　　　　*Areas correspond to Figure 1.

addressed. Two years from now, it will be interesting to see if these sites still exist, and to compare improved areas.

Procurement officials are under pressure to move quickly through the procurement cycle because the public is not willing to wait months to get the services it requires. This need for speed has enabled forward thinking procurement professionals to get creative, and has spawned the widespread use of:
• Shorter length proposals with evaluation emphasis on capability instead of approach.
• Oral presentations in lieu of written proposals.
• Multiple award/competitive task order contracts, particularly in General Service Administration (GSA) schedules.

One recent example of improved procurement speed is the award of a more than $100 million, eight-year contract through three GSA ANSWER contracts in less than six weeks from Request for Proposals release to award. Four years ago, this procurement effort would have taken more than six months to complete.

To cite another example, in 1997, DoD awarded a 10-year contract for the Standard Procurement System (SPS) to American Management Systems. The objective of SPS is to eliminate redundancy within the DoD procurement program, automate processes, improve communication, and increase functionality. DoD vendors and contractors can receive standardized contract forms with standardized language, rapid contract award processing, and electronic contract administration. SPS has been incrementally deployed for groups who perform four kinds of procurement: military base buying, contract administration, major weapons systems, and inventory control points.

Almost half of the potential users are at military bases. SPS currently standardizes simple acquisitions for base functions, but will later address more complex procurement processes. The SPS system addresses many stages of the DoD procurement process, including requirement definition, pre-solicitation, solicitation and amendments, evaluation and selection, award administration, receipt and acceptance, payment entitlement, and close-out. Additional information about SPS can be found at http://www.sps.hq.dla.mil.

## Government Teams Focused on Improving Electronic Procurement Practices

**Electronic Processes Initiatives Committee (EPIC) of the President's Management Council** — http://policyworks.gov/org/main/me/epic

EPIC provides a cross-functional interagency policy coordinating organization for electronic commerce, specifically focused at electronic funds transfer (EFT), purchase cards, smart cards, and others. This committee is chaired by OMB and includes members from the General Services Administration, the Department of Defense, the Department of Treasury, and the Department of Education. Through OMB, it submits an annual report to Congress. The report reviews the progress of electronic commerce in the federal government. See internet site: http://policyworks.gov/epic for a copy of these reports.

**Interagency Acquisition Internet Council (IAIC)** — http://www.arnet.gov/IAIC

IAIC seeks to promote ways to optimize the use of the Internet to streamline the federal acquisition process and to increase communication of acquisition-related information. IAIC has been instrumental in exploiting emerging technologies to improve use, access, and dissemination of procurement related information over the Internet. Its members have been at the forefront in testing the electronic posting system (www.eps.gov) to enhance seller access to federal business opportunities and related information and, in the process, to reduce the burden on buyers in providing this information.

**Procurement Executive Council Electronic Commerce Committee** — http://www.arnet.gov/comm-council

The mission of this organization is to maximize efficiency and effectiveness in acquisition systems through electronic means to improve business processes. It has established four project areas including: participating in the evaluation of the electronic posting system, developing EC metrics, keeping abreast of commercial EC practices, and identifying new opportunities for reengineering business processes.

**The Federal Electronic Commerce Program Office (ECPO)** — http://www.ec.fed.gov

ECPO coordinates, monitors, and reports on the development of EC within the Federal Government. Its mission is to develop a policy framework to support EC, help government agencies find and use the best EC tools, and to spread the most promising ideas across government. The Federal Electronic Commerce Office is co-chaired by representatives from the General Services Administration and the Department of Defense. The Office of Electronic Commerce consists of three teams:
• The EC Coordination Team works with federal agencies, OMB, and others to coordinate, monitor, and report on the government-wide implementation of EC.
• The EC Policy Team works with federal agencies, OMB, the Electronic Process Initiatives Committee, and others to develop a policy framework to support key government-wide EC applications.
• The Card Technology Team works with federal agencies and industry to coordinate, monitor, and report on the government-wide implementation of card technologies.

FIGURE 4: Government Teams Focused on Improving Electronic Procurement Practices

Competition is everywhere—even among government agencies. To meet contractor requirements, new contract vehicles have appeared offering numerous options to potential contractors. Government contractors now have the opportunity to select the best vehicle for their work—even outside the agency awarding the contract. Government agencies are attempting to capture business by offering flexibility and responsiveness. Many of their contracts offer various procurement types and long contract duration (some up to 10 years). Diverse GSA schedules and large competitive task order contracts are resulting in a more rapid response, more competition, pre-qualified industry capability, and best price offers.

*"We are in a time of rapid change which demands that we question the traditional ways of conducting procurement business. Change is never easy or risk-free. In this environment, however, not changing is more risky than trying to innovate and change. If we simply stick to what we've done in the past, progress will never occur and citizen trust in government will never be won back."*

*– Dr. Steven Kelman[2]*

## Government Teams Focused on Improvement

As shown in Figure 4, there are several interagency teams that focus on improving various aspects of electronic procurement. The Association of Proposal Management Professionals' new Acquisition Reform Task Force will be monitoring the activities of these teams and others to ensure that industry inputs are coordinated as federal improvements evolve.

## Measuring Electronic Commerce Activity in the Federal Government

Section 30(e) of the Office of Federal Procurement Policy Act requires the submission of an annual report to Congress discussing agency EC activity in procurement. The Office of Management and Budget's (OMB) measurement of activity included 1998 statistics on the value of purchase card activity (over $8 billion), number of business opportunities posted via CBDNet (127,965), and value of FACNET transactions ($1 billion). In the electronic procurement arena, some agencies are moving faster than others, as shown in Figure 5, EC Activity Agency-By-Agency. The next report to Congress is

expected to be released in early 2000 and will provide 1999 statistics, which are likely to be significantly larger than the preceding year.

## EC Activity Agency-By-Agency

*Source: Electronic Purchasing and Payment in the Federal Government Annual Report to Congress, 1999.*

| Agency | General—Using Purchase Cards to Pay for Orders | Developed/ Operate Catalogs/E-mails | Participate in the Electronic Notice or Posting System | Have an Electronic Contract Writing System |
|---|:-:|:-:|:-:|:-:|
| AID | ● | | ● | ● |
| Agriculture | ● | | | ● |
| Commerce | ● | | ● | ● |
| DoD | ● | ● | ● | ● |
| Education | ● | | | ● |
| Energy | ● | | | |
| EPA | ● | | | ● |
| FEMA | ● | | | |
| GSA | ● | ● | ● | ● |
| HHS | ● | ● | ● | ● |
| HUD | ● | | | ● |
| Interior | ● | | | ● |
| Justice | ● | ● | | ● |
| Labor | ● | | | |
| NASA | ● | ● | ● | |
| NRC | ● | | | ● |
| OPM | ● | | | ● |
| SBA | ● | | | |
| SSA | ● | | | |
| State | ● | | | ● |
| Transportation | ● | | ● | ● |
| Treasury | ● | | ● | |
| Veterans Affairs | ● | | | ● |

FIGURE 5: EC Activity Agency-By-Agency

[2] Statement of Steven Kelman, Administrator for Federal Procurement Policy before the Subcommittee on Oversight of Government Management and the District of Columbia Committee on Governmental Affairs United States Senate, July 25, 1995.

*"The future lies with those who can adjust with the constantly changing environment ."*

—P. Nunn

## Industry Perspective

Figure 6 illustrates what the author thinks the future holds. It was developed using a "What's Out" and "What's In" approach regarding EC.

### Techniques to Assist in This Dynamic Environment

The future lies with those who can adjust with the constantly changing environment. There are many opportunities to stay abreast of the procurement world and to help federal agencies meet future demands.

*Keep informed.* There are many opportunities to stay informed. You can attend a seminar or Association of Proposal Management Professionals conference, read periodicals, visit government agency procurement offices that have contracts with your company, or monitor the Internet procurement sites. Plan to stay current with procurement trends as well as technology—both have an impact on your environment.

*Keep your company and managers informed.* So you've learned something new? Spread the word! In this time of never ending deadlines, we cannot afford to send our whole contracts or proposal teams to conferences. Make sure those who are fortunate enough to attend report back to the rest of the team.

*Implement when your customer does.* Industry has a tendency to implement the latest technology as soon as it is available. Remember, federal agencies do not implement technology as quickly and you must stay compatible with them. If technology is available that can assist a federal agency, educate procurement professionals and encourage rapid implementation.

*Personal support is critical for software implementations.* All too often the latest software is loaded onto a system and expected to improve productivity. Improvement requires change and change requires training and support.

## Procurement in 2010

I thought it would be interesting to share some rather different ideas for 2010. This section provides some thought-provoking alternatives as to how procurement may be managed in 2010.

### Year 2000 Procurement

| What's Out | What's In |
|---|---|
| Submitting proposals on 31/2" disk | Worst case: CD ROM submittal<br>Best case: Upload to Internet site |
| Large paper proposal submittals | Under 50-page proposals |
| Large quantity of resumes | Key personnel only (less than five) |
| Government responsibility for obtaining past performance surveys from government references | Contractor responsible for obtaining past performance surveys from government customers |
| Electronic evaluations using proprietary software | Electronic scoring systems that cumulate scores and provide executive summary for Source Selection Authority |
| Single face to industry for all government procurement opportunities | Several key Internet sites provide links to over 90% of the procurement sites |
| Winning by a wide margin | Major competition – a loss may be by one point or one dollar |
| One company does it all (high risk) | Teaming (lowers risk) |
| Sole source | Competition |
| Black and white proposals | Color, color, and more color proposals |
| Single award | Multiple award |
| Viewgraphs | Use of technology-driven presentations |
| Government secrecy | Full and open industry discussions; detailed debriefs |
| Single contract type procurements | Hybrid procurements (i.e., CPFF, FFP, T&M, etc.) |
| Extended evaluations with extensive clarification requests and deficiency reports | Quick awards based on first offer |

FIGURE 6: Year 2000 Procurement

# PROFILE

# Steve Shipley

CEO, Shipley
Associates,
Inc.

*An interview
with the man
who started the
Association of
Proposal
Management
Professionals
(APMP)*

**By Rick Rider and R. Dennis Green**

It is a long trip from a log cabin in Jackson Hole, Wyoming, to the top of the proposal management profession. Steve Shipley not only made that unique journey, but laid the foundation for APMP's growing community (now 1,400 members) while building a business consulting enterprise with an international clientele.

As his life unfolded during recent interviews, we had a chance to learn about his storied and multi-faceted background, the company he runs, and his view on the industry's newest steps into virtual proposals and beyond.

## Steve's Early Years— An Omni-form Mosaic

Stephen P. Shipley was born in the proverbially American log cabin (actually a one room log hospital) in 1945. His father's job with the US Forest Service kept the family on the move throughout western America, and each one of the four Shipley

children was born in a different state. Steve attended high school in Oregon and college in Utah at Brigham Young University, where he majored in Psychology and minored in Accounting and Economics. He also spent a few years serving the Mormon Church, doing missionary work in Scotland.

After graduating from college in 1969, Steve's first job was assistant to the Chairman of Husky Oil Company, a Canadian firm with US headquarters in Cody, Wyoming. By 1971, he was in Washington, DC, raising a family, working at the Department of the Interior, and attending law school at the University of Maryland in the evenings. While in law school, he ran the Flood Disaster Program in Maryland after Hurricane Agnes hit, and worked with the US International Trade Commission.

As a newly-graduated lawyer, Steve became an attorney/advisor to the Federal Power Commission on energy regulations. He also served as DC Council to the Bonneville Power Administration.

The next move was back to Denver, Colorado, where he helped start the Mountain States Legal Foundation, which, in its own words, "is a nonprofit public interest legal center ded-

## "PDW" Storyboard, One of Numerous Shipley Tools

Originally developed as the famously-large six-panel Proposal Development Worksheet tailored for federal procurements, the PDW (some call it a "hummer") is now available in 4-panel, commercial, international, and tailored versions. Using it helps ensure responsiveness, clarity and completeness in what is proposed.



icated to individual liberty, the right to own and use property, limited government and the free enterprise system."

Then the Reagan years hit, and Steve moved back to Washington, DC to serve as Executive Assistant/Chief of Staff at the Department of the Interior under James Watt.

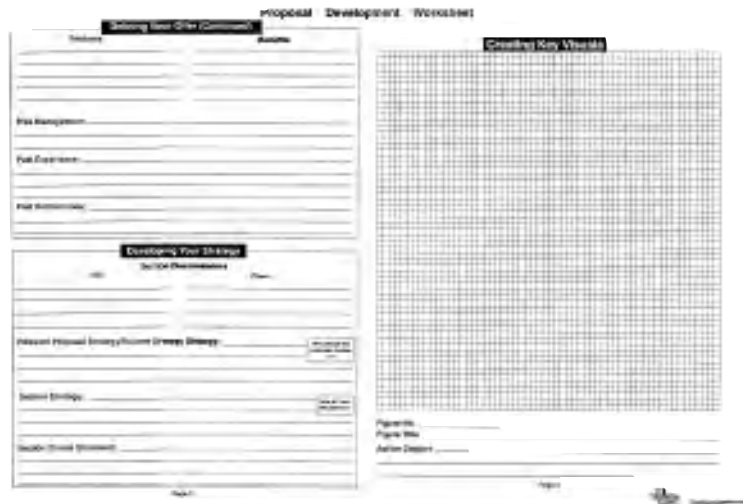This was followed by consulting work based in California.

## Shipley Associates— An Enterprise With Business Writing & Training Roots

So where does proposal management fit into all this movement and experience? Along another scenic route, of course. Steve's cousin, Richard, was national sales director for Evelyn Wood Speed Reading Dynamics. Richard founded Shipley Associates to provide business and technical writing and presentation training courses in 1972. As his training cadre evolved, it was almost exclusively comprised of Ph.Ds in English.

With the passage of the Federal Acquisition Regulations (FARs) in 1984, clients such as General Dynamics, McDonald Douglas and Aerojet began to ask Shipley Associates if the Shipley writing style was applicable to proposals. The honest answer at that time was "Darned if we know!" But, faced with a potential new revenue stream knocking at the front door, Richard did what any good businessman would: he began a proposal development department, and asked Steve to join the company and organize it. By that time in his career, Steve had substantial experience writing both grants and proposals.

Thus, in 1986, Steve Shipley found himself in the middle of a training company full of writers and trainers who did not know anything about Federal regulations. He changed the company's hiring profile, recruited proposal managers and developers from major defense and aerospace companies, and, in short order, established Shipley Associates as a force to be reckoned with in the proposal management field.

"We have a 27-year history now in helping companies communicate effectively," Steve said. "We were involved in writing training and presenting training years before the FAR came along and almost dictated that companies establish the proposal capabilities we now see in the industry. Also, we developed an early proposal process that contained 96 steps and continues to evolve."

In 1995, Richard sold Shipley Associates to the Franklin Quest Company. Franklin Quest merged with the Covey Leadership Group of "the Seven Habits of Highly Successful People" fame, and Steve began to feel his department simply did not fit in the new Franklin Covey core business profile. Taking the initiative, he approached management and was granted the right of first refusal to buy the Business Development Division and other elements of the original Shipley Associates.

## A Firm Reborn—It Hits the Ground Running

In September 1997, Steve and six partners repurchased Shipley Associates and formed it as a proposal development services company. Steve is the President and CEO. His partners, all owners, include Bob Winslow (federal workshops), Larry Newman (com-

# steve shipley ... *at a glance*

mercial workshops), Howard Nutt (proposal consulting), Matt King and Frank Howard (account executives), and Tim Rodee, Chief Financial Officer (Tim replaced Russ Masters, an original partner who now works on a part-time basis).

Shipley Associates has grown and changed since its reformation. It remains a selective and highly respected proposal services company. Along with the seven owners, 36 consultants made the transition from Franklin Covey. This has now grown to more than 70 full-time consultants and 100 independent consultants. Sixty Shipley associates hold security clearances, and this number is growing.

Corporate headquarters are located in Farmington, Utah, 15 miles north of Salt Lake City, and three miles down the road from the Shipley

**Position:** President and CEO, Shipley Associates, an $11M proposal management services firm founded 1972.

**Age:** 54

**Family:** Happily married 31 years. Six children; six grandchildren.

**Bookshelf:** Bookshelf: Avid, eclectic reader; current books: Victor Hugo's "Les Miserables," Glen Leonard's "The History of Davis County," some biographies of early Utah pioneers, and Michael Glauser's "The Business of Heart: How Every Day Americans Are Changing the World."

**Balanced Philosophy:** "I believe that work and vocation are important, and we have to hit that hard. But I don't believe that's the total sum of a life."

**APMP:** Founding member and the one most responsible for establishing APMP in 1989.

home. Due to its rapid growth since 1997, Shipley Associates has just broken ground for a larger building in a location which, Steve jokes, will cut his commuting time in half. After all those years moving around the country, that is probably a just reward.

Early on, the ownership group determined it would refocus the company to emphasize consulting. At one time 80 percent of its revenues came from training programs; now training programs constitute only one-fifth of their work. Seventy percent of the company's revenues are generated by Proposal Consultants. The remaining 10 percent is comprised of business process improvement work.

In addition to many Shipley Associates' clients from the defense community, there are also a substantial number of commercial clients, including systems integration, telecommunications, and health care firms. Internationally, the company is targeting growth in areas such as Canada, Europe, and the Pacific Rim. Steve is Chairman of the Board of a subsidiary in England, Shipley LTD., which provides the same types of services overseas.

Overall revenues last year were approximately $11 million. The company supported programs worth more than $25 billion in 1998, increasing to $30 billion last year. Win rates, according to Steve, are approximately 82 percent of the total number of proposals supported, and 90 percent of the total dollar value for those proposals. The company remains privately held by its seven owners.

Is that 'privately-held' status secure? "We're having fun right now," Steve said. "We do not intend to go public. We do not

intend to be purchased by a larger company. At some time in the future, 10 years down the road, maybe. But I don't see that as an option with the current group that we've got. We've been in larger companies and we don't want to be there anymore."

Steve forecasts a 15-20 percent annual growth for the next 10 years.

## Differentiation Amongst Its Corporate Peers

How does Shipley Associates differentiate itself in the current community of large proposal management services firms?

"We have a growing cadre of world class people," notes Steve, choosing to cite what he calls a 'similarity' first. "In the consulting world, this includes proposal managers, volume leaders, writers, desktop publishers, graphics people, proposal coordinators, and specialists such as those for IMP/IMS (Integrated Master Plan/Integrated Master Schedule) and CAIV (Cost as An Independent Variable). In the proposal world, it is becoming more critical that proposal consulting companies have those capabilities. Another similarity is to have a solid consulting process that works. To be tough enough when you need to be tough enough so that you can drive the client, if necessary, to get a win."

"At the same time," Steve cautions, "we don't believe you have to go on *an ambulance ride* every time you do a proposal to be practicing good proposal health."

Referring to the sense of urgency and alarm that consultants sometimes inflict on a client, Steve concedes that "Some need to be an ambulance ride." There "are certain things that need to be done at certain times by the right people, and certain deliverables that have got to come out." In this context, "You've got to be tougher than junkyard dogs to make that happen." Even so, Steve is not an alarmist or changer for change sake. "If there is a good process running in the client environment and people who have been through this exercise before, why do you have to go in and recreate everything and assume that there are not good practices being applied?"

What are other discriminators? "We probably do more business capture and proposal process development for clients than any company operating out there now," said Steve. "We probably have a more in-depth training curriculum than any company. We recognize that there is a difference in Best-In-Industry Practice for the federal world and the commercial world, and we work aggressively in both environments."

The scope of Shipley Associates' services is focused, but evolving. The firm helps federal and commercial clients develop their internal proposal development capabilities, and provides consulting support from initial request for proposal (RFP) release to proposal submittal.

Training over the past few years has become more proposal-specific, with exercises increasingly based on the actual RFP rather than on generic case studies. A series of "just-in-time"

training modules based on essential skill sets are available for one-on-one coaching. Efforts are well underway toward more web-based training.

Shipley's process consulting services analyze client business and proposal development practices, and customize training courses to help these clients adopt best practices and to develop their internal resources. This can open up a training relationship with the clients, leading to ongoing development as their resources and staffs evolve.

Shipley also assesses the effectiveness of past proposals. This is "like a doctor taking blood samples." They analyze a number of criteria, including strategy, discriminators, graphics, writing style, etc. They can often determine what is going on within an organization. For instance, if they find that no overall strategy exists, it would indicate a breakdown of the core proposal team. The Shipley Methodology (see below) provides a set of criteria against which these previous proposal efforts can be measured.
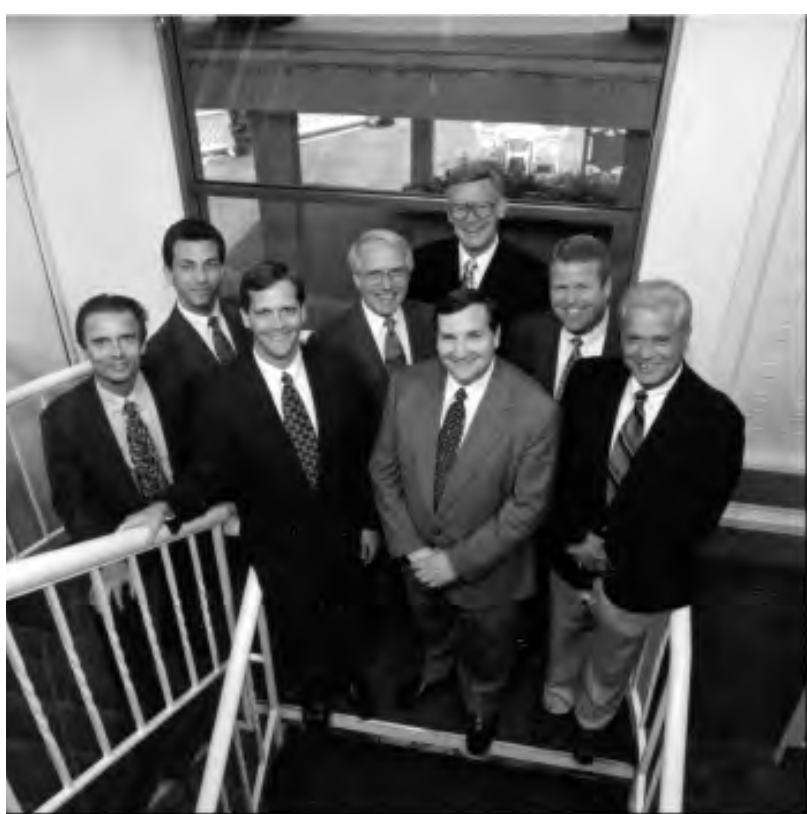
## Industry Adaptation – Consulting and Outsourcing on the Rise

Shipley's associates include business development specialists, subject matter experts, proposal managers, volume leaders, writers, graphics artists, production coordinators – whatever is needed, depending on each client's requirements and internal resources. Outsourcing may place a proposal manager at a customer site for a year, or lead to a few weeks assignment for a volume leader. In this regard, Shipley is following an industry trend.

"A lot of our revenues come from helping companies develop internal capability," said Steve. "There is a trend in the federal world toward smaller proposal staffs. The old days when a client might have 10-20 people in a proposal cadre are going to get rarer and rarer." Steve envisions that "companies may scope up to handle 50 percent of their proposals, then go outside to find people to help with the balance. So we not only see a growth in the consulting business where we provide people such as proposal managers or volume managers, but I think there is going to be a lot more functional outsourcing where clients ask companies like

*more...*



When this ownership group re-purchased Shipley Associates from Franklin Covey in September 1997, they hit the ground running, quickly growing the proposal management services company into an $11M enterprise with 70 full time consultants and 100 independent consultants. The owners are: (back Row) Frank Howard, Howard Nutt, Robert Winslow, Tim Rodee, (and front row) Larry Newman, Matt King, Steve Shipley, and Russ Masters.

ours to help supply their day-to-day operations staff." He adds, "We're going to play in that arena."

## Virtual Initiatives in the Proposal Management World

Shipley's associates are also practitioners using the newest virtual technologies. At the time of our interview, for example, Steve had just returned from Tampa where he was consulting on "the development of a virtual proposal center for the IBM e-business world."

We asked Steve to speculate on the trends in this dynamic area. He started by focusing on business development and sales. "In commercial environments, we're going to see more and more instances where sales people or account executives are dispersed," said Steve. "We may see them working with a number of proposal centers. Those centers will have to use common tools available to them on the net. They will have to share common boilerplate and 'reuse' materials. And, there will have to be a common process that wafts itself through all of these people who work at dispersed locations with a common goal of getting a winning proposal out."

In parallel, Steve sees a strong trend toward virtual electronic packages and tools of two types—proposal management software and collaborative environment software. He predicts some mergers and acquisitions will result in finer program packages for this marketplace. Asked why he thought the software developers would take note of specialized proposal management applications, he made this salient observation. "To the extent that proposal work is project management, I think we can ride in on the coattails of what will be happening in the collaborative environment. Because e-business—use of the Internet, the Web, and the need to link people who are in different places doing similar tasks—is not just a proposal phenomenon, it is a workplace phenomenon. And it will be there for us."

## Federal and Commercial Differences in the Marketplace

Steve differentiated some of the impacts he predicts on both the federal and commercial markets. "In the Federal contractor world," he said, "we are going to see smaller proposal staffs, and a greater increase in functional outsourcing. We are going to see the use of more electronic tools, templates, and software."

"It is going to explode in the commercial world. Proposals are going to become more complicated. RFPs will become more structured. There is going to be an increase in the number of proposal centers. And proposal centers, in order to be



Architect's rendition of Shipley Associates' new corporate headquarters, now under construction in Farmington, Utah. Steve is delighted that the new facility will cut his already-short commute in half.

viable, will not only be involved in doing proposals, but they will have to capture the tasks of creating sales and marketing collateral. If a commercial proposal center cannot do that, it is not going to be around very long."

And why will commercial acquisitions become more complex? Steve speculates this is a natural outgrowth of the economy's many mergers, acquisitions, and larger companies. "We are never going to get to the extent where we have the equivalent of federal acquisition regulations, but we will have more complicated RFPs. Commercial proposal staffs will then have to learn how to strip out RFPs and develop compliance matrixes. Compliance and responsiveness will become more rigorous tasks."

Steve makes another poignant observation about commercial procurements. "We teach in our sales training curriculum," he said, "that if you can win without going to bid, you are always better. But that is going to change. There are going to be fewer opportunities to win through sole source or without going through some type of proposal effort."

## The Shipley Methodology

The Shipley Associates mission statement reads: "We help clients win business." They have developed a specialized market niche that emphasizes working with and improving each client's existing strengths. They offer a full range of proposal development and support options, while recognizing that the companies themselves control the money and resources necessary to make the proposal happen. As Steve says, "We touch their company and influence their decisions, but they are ultimately responsible for the win."

Shipley Associates views itself as a business development firm that enables companies to exploit their internal potential and improve their capabilities. "Companies without a new business capture capability as part of their core capability," Steve said, "are at an inherent disadvantage in the market-

place. They have to be merging and integrating their corporate mission statement and their strategic plans, particularly the work that their marketing people do. This includes the business development functions, how they deal with their pursuit decisions, their capture process, and their proposal process, and then how that folds into program management. They have to have a process that defines that. If we can come in and help them develop what their new business capture capability is, and then go back and help them apply that, we will better serve."

In Steve's view, this is the essence of partnering with a client. While partnering can be a lip-service term at times, Shipley takes it very seriously. Their professionals, products, and services are all focused on helping each client achieve business development goals, both internally through process development and externally through outsourcing.

The Shipley Methodology builds on existing company strengths and adds best practices and a detailed series of procedures and templates to the proposal development process. One of those tools is a Shipley-developed storyboard. "I still believe you have to force writers to plan before they write," said Steve. "And some type of tool—we use the Proposal Development Worksheet—must force them to take a look at what they are going to offer, what they have done in the past in terms of past experience/past performance, what the risks they have to mitigate are, what discriminators they have, the features and benefits they need to discuss, and theme statements and visuals. Those are all part of good planning. And I believe that there is nothing better yet than the storyboard methodology to get that thinking down on paper." Steve adds that "part of getting a company to change its environment to be a successful winning environment is to change the writing philosophy in the development of their documentation."

## "Better Because Our People Have Been There"

Steve's goal for Shipley Associates is to leave a positive residual impact on each client: "We want the company to be better because our people have been there." Each candidate consultant is therefore very carefully screened to ensure his or her personal philosophy is in synch with Shipley Associates, and

> *To the extent that proposal work is project management, I think we can ride in on the coattails of what will be happening in the collaborative environment.*
> —STEVE SHIPLEY

fully trained in the methodology. Detailed consulting handbooks, prepared and regularly updated by each Division Director (supported by a context committee), ensure that FAR changes, best practices, and proven standards are followed on the job, and provide on-site guidance and checklists. Steve says, however, that the basic goal—to win—always calls for independence and flexibility. So although the company is "tough as nails" on following the established steps of its proposal development methodology, it also recognizes the need for and accommodates individual flexibility depending on the consultant's and the customer's inherent strengths and goals.

Repeat business often occurs when the methodology has been proven and the client has become familiar with it. Shipley Associates offers some public workshops to introduce the methodology, to apply it directly to help small companies, and to train large companies in its application.

Although the Shipley Methodology, and indeed everything Shipley Associates produces for training and proposal development, is protected by copyright, Steve is very proud that his company maintains an open environment and is quite liberal when it comes to sharing tools, templates, and other information with clients and industry peers. When the authors were working to launch APMP's Washington, DC-based chapter in 1992, for example, Shipley lent them its massive client mail list as a starting point for the chapter's own promotional list. This kind of sharing contrasts with other firms that go to great lengths, including litigation, to prevent the propagation and use of comparable methodologies and tools. Why is Shipley different?

"It evolved from where we first started as a training company," said Steve. It follows from 27 years of teaching its courses, promoting its federal and commercial proposal development methodologies, and helping numerous clients tailor those general methodologies to client requirements. "We have had to be a little more liberal in the use of our tools because they are out in the marketplace so extensively. And that is fine with us."

How much of a stickler is Shipley for using Shipley tools when supporting a client? "I am more ends-oriented than means-oriented," Steve observed. "But unless you have good means, you don't get good ends."

*more...*

> " *We don't believe you have to go on an ambulance ride every time you do a proposal to be practicing good proposal health.* "
> —STEVE SHIPLEY

## APMP—The Founder's Legacy

We come now to the heart of our story. Perhaps someone else would have formed APMP if Steve Shipley had not been around, but the fact is that Steve did envision and form APMP. The rest, as they say, is history. Our history.

While running Proposal Development at the original Shipley Associates, Steve realized he was part of a rapidly growing profession that had no national organization, no forum for the exchange of ideas, no network, and no flexibility to help those within the profession who wished to locate or change jobs. Thus a vision was born, and Steve, as he puts it, became the "original villain" in the APMP drama.

On August 14, 1989, Steve Shipley (the attorney) walked into the Utah Department of Commerce office and legally established the National Association of Proposal Managers. Two days later, in Long Beach, California, an initial gathering of 27 proposal professionals invited by Steve to form the organization voted to establish it and its initial steering committee. At the first steering committee meeting, the name of the organization was changed to the Association of Proposal Management Professionals, and APMP was born.

One of the challenges to forming APMP must surely have been the resistance of competitors who did not want to divulge information in a compromising way. How did Steve hope to assuage this concern?

"We had a couple of sets of competitors," Steve acknowledged. "We had the competitors in the industry who were bidding against one another. And we had consulting groups like ours who were trying to serve those people in the industry. So we had to create an environment where we could share ideas without sharing those confidential areas that should not be shared. With regard to other consulting companies, we attempted to call every one that we knew to be a player in the industry at that time; we explained what we were doing, explained Shipley's role strictly as a facilitator, and let them know that the association would not succeed unless all of the major players were involved in it, not just us."

Steve's great foresight was in helping to fashion an APMP that represents all members and all proposal development companies. Although he has served as APMP's CEO, serves as its legal council, and has remained on its board since the beginning, Steve has also worked hard to ensure that APMP is not seen as a "Shipley" organization. Shipley Associates remains one of APMP's biggest fans and supporters, however, and various associates have served on the board and as presidents of four local chapters.

## An Even Keel

On a personal note, those who come to know Steve find a man who is deeply spiritual. "That's what I'm striving for," he told us. "I believe that work and vocation are important, and we have to hit that hard. But I don't believe that's the total sum of a life. I believe that what you do outside of the work environment, in your family, in your avocations—and for me, church activity is a large part of where I spend discretionary time—these things are also important. But I can't characterize to you what kind of a man I am. I can only characterize what kind of a man I'm trying to become."

Talking with Steve's competitors in the industry, some were quick to tell tales about Shipley's competitive nature and practices in the workplace, but a far greater number of proposal management professionals just characterized Steve as a truly nice guy. That is high praise in a survival-of-the-fittest industry where you often hear that "nice guys finish last."

Happily, Steve proves the pundits wrong. And APMP—the association he has worked so hard to establish—endures.



Steve participated in APMP's February Board of Director's meeting in Salt Lake City, the planned site of the APMP 2002 conference. Photo by D. Winton

Rick Rider has been an independent proposal development consultant and writer for the past eight years. He helped found APMP's National Capital Area chapter, served as its first secretary/treasurer, and developed and edited its newsletter, *The Executive Summary*, for four years. He serves as Articles Editor, *Proposal Management*.

R. Dennis Green is a management consultant, writer and practitioner with 20 years of proposal experience. He was founder and first President of APMP's National Capital Area chapter. He serves as Managing Editor, *Proposal Management*.

Consider these as ideas—not as prophecies!

*Oral presentations online.* Expect that presentations will be made at interactive video teleconference centers instead of traveling to designated locations.

*Web-based interactive proposals.* Although we are submitting multi-media proposals, we are not quite ready to implement proposal responses via interactive Web pages. Imagine how quickly we would redefine the government use of "elaborate proposals!"

*Online bidding option 1.* Similar to the "e-Bay" auction shop, all final cost proposals will be viewed by other bidders and the selection goes to the lowest priced proposal.

*Online bidding option 2.* Assume all competitors are placed in a virtual environment at a specified date and time. The task is defined by the customer in a Web-based interactive environment. The bidders respond online in this same environment. The customer guides and monitors responses until a satisfactory proposal is achieved. This scenario enables all bidders to view every other bidder's response and adapt their proposal spontaneously.

*Buy an expert, pay by the hour.* Our customers will peruse special Internet sites to find the very best talent available (despite corporate affiliation) at the rate they are willing to pay. Qualifications of specific personnel will be used just like specification sheets for products. Consider the implication of applying the best talent to the task across all corporations.

*Build before we buy.* The problem parameters are explained by the customer and competitor companies must build the solution to compete. Consider the investment and business development challenges.

*Major competition between universities and industry.* More and more universities are competing with industry to obtain work. Current procurement competition is between training and research. In the future, expect universities and industry to go head-to-head on major service contracts.

*Past performance questionnaire—a thing of the past!* Although contractor performance evaluations are being collected within various agencies, it will take a few years to implement posting of evaluations into a government-wide central contractor performance database.

## Conclusion

The past decade has brought many changes and improvements in federal electronic procurement. The next decade offers significant opportunity for additional improvements in the procurement e-commerce processes. As proposal professionals, our function will change in the next five years as procurement processes change. We must stay abreast of technology and its application in the procurement environment to effectively add value to our companies in the future.

## References

### Citations

Kelman, Steven. Statement made July 25, 1995. Available at http://www.arnet.gov/Library/OFPP/PolicyDocs/testimony/72595.htm.

United States Office of Management and Budget. *Electronic Purchasing and Payment in the Federal Government, Annual Report to Congress, 1999.* Available at http://policyworks.gov/epic

United States Office of Management and Budget. *An Assessment of Current Electronic Commerce Activity in Procurement, 1998.* Available at http://policyworks.gov/epic.

Defense Logistics Agency news magazine, *Dimensions,* November/December 1999. "Building a Worldwide Uniform System for the Defense Procurement Process." Full article available at http://www.dla.mil/dimensions.

### Web Sites

Many Web sites were used in the preparation of this document, including, but not limited to:

DefenseLINK: http://www.defenselink.mil

Defense Logistics Agency: http://www.dla.mil

Joint Electronic Commerce Program Office: http://www.acq.osd.mil/ec

U.S. Army Interagency Interactive Business Opportunities Page: http://abop. monmouth.army.mil

Electronic Posting System: http://www.eps.gov

Acquisition Reform Network: http://www.arnet.gov

SPAWAR e-commerce central: http://agena.spawar.navy.mil

Department of Energy: http://doe-iips.pr.doe.gov/iips/busopor.nsf

Standard Procurement System: http://www.sps.hq.dla.mil

Electronic Processes Initiatives Committee: http://policyworks.gov/org/main/me/epic

Interagency Acquisition Internet Council: http://www.arnet.gov/IAIC

Procurement Executive Council Electronic Commerce Committee: http://www.arnet.gov/comm-council

The Federal Electronic Commerce Program Office: http://www.ec.fed.gov

GSA IT Solutions Shop: https://it-solutions.gsa.gov

Preaward Information eXchange System: http://www.pixs.wpafb.af.mil

CBDNet: http://cbdnet.access.gpo.gov

### APMP Sources

Note: The Association of Proposal Management Professionals' Electronic Procurement Task Force Committee Members participated in developing several white papers during the mid-1990s to assist the government during implementation of the initial Internet sites. These papers include:

"Electronic Procurement—Recommendations to Improve the Process" (March 1996)

"Electronic Proposal Submittals—Recommendations for Implementation" (December 1997)

Patricia A. Nunn manages nationwide proposal operations at Anteon Corporation, headquartered in Fairfax, Virginia. Applying technology to the proposal process has been her passion for the past 10 years. She initiated and led the APMP Electronic Procurement Task Force through the 1990s. In 2000, she is leading the new APMP Acquisition Reform Task Force that includes electronic procurement issues. E-mail: pnunn@anteon.com. Telephone: 703-246-0246.

# How Electronic Handbooks Are Changing The Way Federal Agencies Manage Grants and Contracts

**By DR. BARRY E. JACOBS**

Today, the National Aeronautics and Space Administration and the US Department of Justice are successfully using an innovative Internet tool—Electronic Handbooks—to make several of their grant programs completely paperless from solicitation to post-award. Will other federal programs soon follow? It pays to look.

If you have dealt with the National Aeronautics and Space Administration (NASA) and the US Department of Justice, you already know that their Electronic Handbook initiatives are dramatically changing the way proposal professionals interact with them. The entire proposal process is streamlined and completely electronic. This model is one that many other federal agencies are likely to study and adopt very soon.

Electronic Handbooks (EHBs) are Internet-based tools that support the documentation and management of complex distributed processes, such as grant programs (Gugliotta, 1997; Johnson, 1999; Hendrix, 1999; FGIPC, 1999; Friel, 1997; Harreld, 1997; Makulowich, 1998; NASA, 1998; and Steigerwald, 1997). They have been used in a number of federal programs, including NASA's Small Business Innovation Research (SBIR) Program and the Department of Justice Bulletproof Vests Partnership (BVP) Program.

NASA's Small Business Innovative Research (SBIR) program and its acquisition methodology have been streamlined through the use of Electronic Handbooks. The Applicant User EHB guides the applicant through the proposal submission process.

NASA's SBIR Program funds small business technologies throughout the United States and constitutes roughly half of NASA's new contracts. The Department of Justice BVP program supports the purchase of bulletproof vests for US jurisdictions and law enforcement agencies, of which there are more than 80,000.

## What are Electronic Handbooks?

EHBs are Internet-based tools that provide a wide variety of users with electronic forms and instructions for all steps in the grants process from solicitation to post-award.

*NASA's Small Business Innovation Research (SBIR) Program*. The Home Page for the NASA SBIR program (shown above at http://sbir.nasa.gov) is the entry point for applicants and provides a link to the applicants' handbooks. The Applicant User EHB enables organizations to learn about the program, register to get an account and password, electronically submit proposals, and to receive announcements and debriefings. Within NASA, other User EHBs include those of the SBIR Program Manager, Field Center Program Manager, Strategic Enterprise Representative, Topic Manager, Proposal Reviewer, and Contracts Officer.

***Department of Justice's Bulletproof Vests Partnership (BVP) Program.*** The Home Page for Bulletproof Vests Partnership Program (http://vests.ojp.gov) is the entry point for law enforcement jurisdictions. It provides links to jurisdictions, law enforcement agencies, vest manufacturers, and distributors handbooks. The Jurisdictions User EHB enables applicants to learn about the program, register to get an account and password, electronically submit applications, and to request electronic payments when vests are received from distributors or manufacturers. Within the Department of Justice, the BVP Program Manager has a User EHB.



The Department of Justice facilitates the purchase of bulletproof vests to law enforcement jurisdictions nationwide. The BVP Jurisdiction's User EHB guides a jurisdiction through the application submission processes.

## Practical Experience and Use of EHBs

What has been the impact of EHBs on the NASA SBIR Program and the Department of Justice BVP Program? This critically important question can be answered in three ways.

***Why does one move from a paper toward a paperless process?*** The key reasons for moving from a paper to a paperless process are cost reductions and management efficiencies in a period of tight budgets. For the Justice Department, an additional reason was to provide an effective system for a new program that had to be up and running quickly. In NASA's case, the roughly 3,000 proposals submitted each year are evaluated by more than 6,000 reviewers.

Byron Jackson, Deputy Director of the SBIR program at the Jet Propulsion Laboratory in Pasadena, California, says tracking paper flow was difficult under the old system. SBIR contract proposals are reviewed by at least two evaluators, often at different field centers. That meant that at least 6,000 reviews categorized under 120 subtopics were annually being shuffled around the country. Managing the thousands of documents associated with those proposals across 10 centers nationwide was a horrendous task.

"Now we have all the data in one place," says Jackson. "Everybody can see the same data." In the Department of Justice BVP program, there are 80,000 potentially eligible jurisdictions. "Making this program available over the Internet will enable us to reach more communities and help protect more law enforcement officers than ever before," said Attorney General Janet Reno.



Presentation of the Bulletproof Vests System to the Attorney General. Left to right: Richard Ward, Deputy Director, Bureau of Justice Assistance, DOJ; Nancy Gist, Director, Bureau of Justice Assistance, DOJ; Janet Reno, Attorney General, DOJ; Barry E. Jacobs, Research Computer Scientist, Goddard Space Flight Center, NASA; Lluanna McCann, Operations Chief, State and Local Assistance Division, Bureau of Justice Assistance, DOJ; Shyam Salona, Vice President, REI Systems.

***How has the electronic process affected applicants and reviewers?*** In most cases, there were record-setting time and cost savings to both applicants and reviewers. In the NASA SBIR case, where some applicants submit more than 40 proposals a year, the electronic approach speeds up the review and saves money on submissions. SBIR outside reviewers are now able to access proposal abstracts in 24 hours and can access the entire proposal only several days

after the application deadline.

Jane Fox, SBIR program manager at Johnson Space Center in Houston, says she used to wait until the final deadline for contract reviews to find out if an evaluator was behind on his or her work. Now she can send reminders to employees who are falling behind. "At any point in time, I know where everyone is in the system," says Fox.

In the Department of Justice BPV program where some applicant jurisdictions have more than 10 law enforcement agencies, the electronic approach also speeds up the review and saves money on submissions. The Department of Justice reviewers are able to finalize approvals in just two days and electronic payments in five days.

***How has the electronic process affected cost, quality, and administration?*** In both programs, costs were reduced, the quality of the grant process was enhanced, and program administration became easier. Cost savings to the NASA SBIR program were estimated at $300,000. Cost savings to the Department of Justice is harder to estimate, since it was the first time the BVP program was offered.

Better and faster communication between NASA SBIR award winners and potential NASA customers helps the overall quality and the marketing of funded research. Better and faster communication between the Department of Justice and the law enforcement agencies facilitates the distribution of bulletproof vests and thus promotes better and safer law enforcement.

Paul Mexcur, NASA's SBIR program manager, says "we expect to reduce the processing time for contracts by at least a third and may save several hundred thousand dollars a year in operating and manpower costs." He adds that "rapid access to information, retention of information, and ability to use different parts of the information in different formats for different purposes greatly enhanced administrative capabilities."

The Department of Justice Bureau of Justice Assistance (BJA) Director Nancy Gist says that "individuals who risk their lives to ensure our protection deserve fast and efficient access to equipment designed to protect." Gist adds, "this Internet system will allow BJA to get funds where they need to go quicker and, ultimately, save lives."

## Components of EHBs

EHBs are made up of five components.

***Binders.*** Binders define the product. These are used to keep track of all the data for each applicant. For example, a binder may correspond to an SBIR contract.

***Processes.*** Processes define who produces the parts of the binder and when they produce them. Processes are made up



A NASA SBIR Contract Binder contains all the items associated with a specific contract from pre-solicitation to post-award.

of *Chapters* or *Plays* used to describe individual subprocesses. Chapters are called Plays because they describe a temporal subprocess in which different roles perform different steps, and look like the manuscript of a play.

Steps of a play consist of both *Prompted Steps/Substeps* and *Report Tools. Prompted Steps/Substeps* mandate the user provide information about what is required to complete that step. *Report Tools* are used to provide tabular or graphic reports on the data in the binders and processes. Report Tools are predefined or *ad hoc.* The user can generate a predefined report with a single click of the mouse, or can generate *a* number of *ad hoc* reports
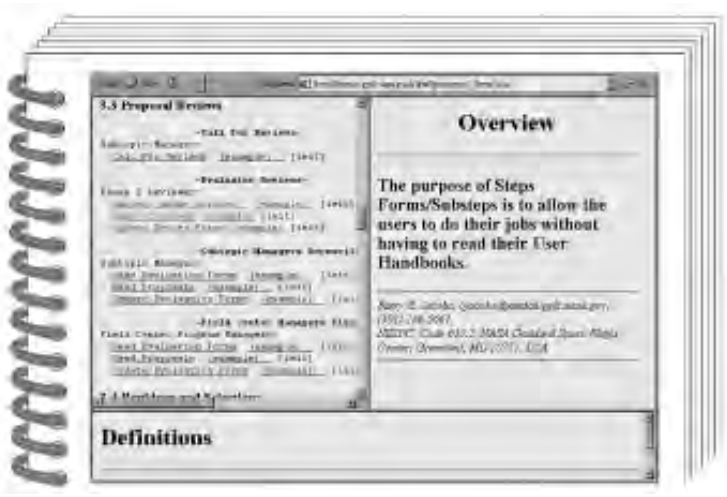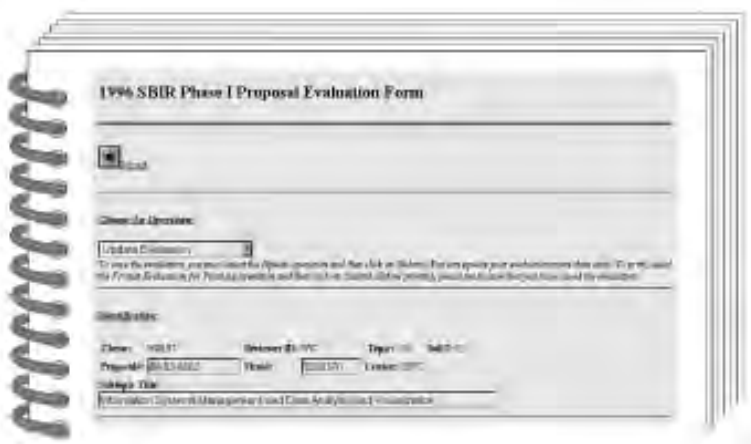
*more...*



NASA's SBIR Processes define who produces the parts of the binder and when they produce each part.

from a single form that represents the report tool.

**User EHBs.** User EHBs define precisely how the parts of the Binders are created by each Role. For each type of user, these are used to describe their respective subprocesses. Examples of User EHBs include SBIR applicants and BVP jurisdictions, in addition to reviewers, contract managers, and program managers.

**Home Pages.** Home Pages provide public interfaces for prospective applicants.

**EHBs Files Architecture.** EHBs Files Architecture defines the file structure of all EHB pieces, and is used in a programming-free environment. It is a tree of all text files that comprise an EHB. Each tree is broken down into many branches.



NASA's SBIR Chapters or Plays describe various subprocesses. Each Chapter or Play looks like the manuscript of a play.



NASA's SBIR Report Tool displays the distribution of proposal applications by state. It can also generate many other kinds of reports.



For NASA's SBIR Prompted Steps/Substeps, users must provide information to complete each step.



The EHBs Files Architecture used by NASA and the Department of Justice provides a paperless infrastructure for the entire Electronic Handbook.

# EHBs Architecture

The EHBs Architecture is composed of four parts: *Participation, System, Security,* and *Files.*

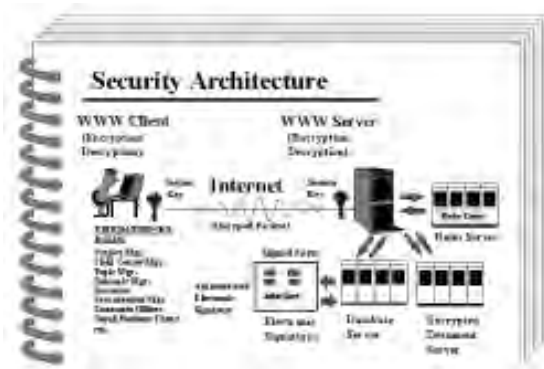**Participation.** There are three dimensions of EHBs participation:

- *Top-to-Bottom participation* means that EHBs involve users across all levels of process management.
- *Coast-to-Coast participation* means that EHBs involve users located across physically separated sites.
- *Cradle-to-Grave participation* means that EHBs involve users across all connected subprocesses.

**System.** End users and EHBs both use the Internet.



EHBs Participation Architecture represents three dimensions of user participation: top-to-bottom, coast-to-coast, and cradle-to-grave.

The end user interacts via a World Wide Web client such as Internet Explorer, AOL, or Netscape. The EHBs system interacts through several servers: World Wide Web, Database Management System, Graphics Report, Legacy System, and Middleware. Examples of Middleware include DBGenie, Cold Fusion, and Dynamic Forms. The entire EHB system uses Commercial-Off-the-Shelf (COTS) components.

**Security.** End users and the EHBs system implement



EHBs System Architecture relates the user software to the system software. The end user interacts via a World Wide Web client.

security through the Internet. The end user interacts via a User EHB through a secure password and role mechanism. The EHBs system interacts through several servers: World Wide Web, Roles, Database Management System, Encrypted Document, and an Electronic Signature System.
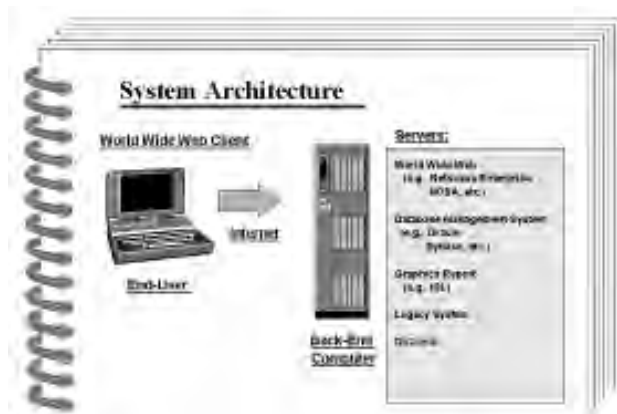


EHBs Security Architecture provides information in the Electronic Handbook on a secure need-to-know basis. This is critically important because proposals may contain valuable intellectual property.

Security is a critical requirement, especially in the case of government-sponsored grant programs. Grantees who lose valuable intellectual property due to system security lapses could sue the Government for major financial loses. In addition, they may complain to their Congressional representatives, who then might slash the offending agency's budget or carry out other forms of retribution.

**Files.** This is used as a programming-free environment. It is a tree of all of the text files that comprise an EHB.

# Applications of EHBs

In addition to grants and contract programs, EHBs technology can be applied to different information-based applications in federal agencies.

**E-Science**. This is the process where investigators perform collaborative scientific investigations. In this process, scientific investigations are formulated by adding co-investigators, inputs, proposals, sponsors, experiments, activities, and outputs. Roles include the scientific investigations manager, investigator, and sponsor.

**Policies and Procedures.** This is the process agencies use to prepare and review policies and procedures used to manage the entire organization.

**Proposal Development.** This is the process organizations use to prepare internal proposals that are outlined, developed, and reviewed through blue and red team evaluations.

**Public Affairs.** This is the process organizations use to prepare articles and press releases.

**Programs and Projects.** This is the process through which individuals or groups manage large-scale programs and projects across an entire organization.

**EHB-to-Build-EHBs.** This is the process where all EHBs are actually built. In this process, EHBs are proposed, designed, reviewed, implemented, tested, and put into operation.

## EHB-to-Build-EHBs

The EHB-to-build-EHBs is the mother of all EHBs. Each EHB is developed in three stages: Worksheet, Example, and Implementation. In all three stages, developers define the parts of the EHB—binders, processes, user EHBs, home page, and files architecture. Since all three stages are available on the World Wide Web, developers can get feedback from potential users as the EHB is built.

**Worksheet.** In the first stage, binders, processes, user EHBs, home page, and files architecture are created in a worksheet format. The result is an outline of the entire EHB.

**Example.** In the second stage, binders, processes, user

> "We expect to reduce the processing time for contracts by at least a third and may save several hundred thousand dollars a year in operating and manpower costs."
>
> —Paul Mexcur,
> NASA SBIR Program Manager

# *So What is SBIR/STTR?*

**W**ith approximately 60,000 proposals submitted annually, one of the most active proposal arenas in federal government contracting is the SBIR Program (referred to in Barry Jacobs's article on Electronic Handbooks). SBIR is an acronym for Small Business Innovative Research.

### BACKGROUND

The SBIR program was created in 1982 with the enactment of the Small Business Innovation

*By JOHN DAVIS*

Development Act, was strengthened by Congress in 1992, and is currently under active consideration for reauthorization.

An almost identical program, Small Business Technology Transfer (STTR)—which requires the for-profit bidder to team with a not-for-profit research institution such as a university, hospital, or government laboratory—is about one-sixth the size of the

SBIR Program and is generally operated by the same agency personnel. STTR has to be reauthorized annually instead of every eight years like SBIR. When using the term SBIR, STTR is often included by implication.

### STATED OBJECTIVES OF THE PROGRAMS

Designed as a pro-small business

Group critiques not only improve the User EHB but also provide critically important "buy-in" by potential users since they helped design the product.

EHBs, home page, and files architecture are created by building HTML examples of what the final products will look like to the end user. These examples can be presented to end-user focus groups for comments.

*Implementation.* In this final stage, the example binders, processes, user EHBs, home page, and files architecture are programmed into databases and then presented to end-user focus groups for comments.

In general, one does not build a complete EHB from start to finish. Rather, one builds one Chapter or Play at a time. Roughly speaking, a chapter may take about two months from design (worksheet and example phases) before it is implemented.

For example, at NASA the chapters were built over several years in the following general order: review and selections; solicitation development; proposal submissions; award initiation and negotiations; post-award; and award management and closeout. An agency interested in building an EHB would initially bring in specialized EHB authors, implementers, and help desk personnel. Ideally, as these specialists build and maintain EHBs, they would also train local staff to develop EHBs.

The time and cost to develop an entire EHB is a function of several factors: the complexity of the process, the availability of the details of the process, and whether or not the EHB can be built from a similar existing EHB. For example, NASA's SBIR EHB comprises 16 chapters (each with an aver-

*more...*

engine for research and technical innovation, the SBIR/STTR Programs have four principal stated objectives:
1. To stimulate technological innovation by small business.
2. To increase small business participation in meeting federal research and development needs.
3. To increase the commercialization of technology developed through SBIR research and development.
4. To increase the participation of socially and economically disadvantaged small business concerns and the participation of small businesses that are at least 51 percent owned and controlled by women.

## A REAL OPPORTUNITY TO COMPETE

Research and development are clearly major factors in the growth and advancement of American industry. Moreover, it is widely recognized that small businesses have played a highly successful role in developing critical technology innovations, especially for the government. However, the expense of carrying on a serious research and development (R&D) program is often beyond the means of most small business concerns. This puts them at an immediate competitive disadvantage in the marketplace.

The SBIR program is supposed to help level the playing field.

Through the SBIR Program, small R&D businesses can compete for federal research contracts. Through the government's front-end funding of this early stage, high risk research allows the best ideas to surface. At the tail end of the process, SBIR offers small businesses the opportunity to commercialize the results of their SBIR projects while serving to lower the risk for private investors.

Thousands of small businesses nationwide have already obtained

*more...*

age of 50 steps), and the entire EHB is made up of more than 40 roles. Since NASA's SBIR process spans multiple offices and divisions, there was no single resource that could be used to identify all process details.

NASA's SBIR EHB took a very long time to develop because it was the first of its kind. Other grant program EHBs, such as those of NASA's Earth Science Technology Program, usually have only six chapters (solicitation development, proposal submission, review and selection, award initiation and negotiations, award management and closeout, and post-award), and each was derived from NASA's existing SBIR EHB.

## Lessons Learned

Several lessons have been learned during the development and implementation of EHBs that should help NASA, the Department of Justice, and other government agencies use EHBs more efficiently and effectively to streamline the proposal process.

***Quickly Develop the Big Picture.*** When developing EHBs, it is important to first outline the entire process across all Chapters. This provides the developer and others with an overall perspective and a sense of all the possible user EHBs. Basically, it provides a top-down "road map" of the entire process.

***Utilize Example User EHBs for Requirement***

***Capture.*** When capturing requirements, it is important to use Example User EHBs. They look exactly like the final User EHBs but have simulated data. This enables developers and eventual users to precisely visualize the system and to make concrete suggestions about improvements.

***Employ User EHBs Focus Groups.*** When developing EHBs, it is important to utilize user focus groups corresponding to different User EHBs. Each focus group can meet physically or electronically through the Internet or teleconferencing. Group critiques not only improve the User EHB but also provide critically important "buy-in" by potential users since they helped design the product.

***Keep User EHBs Simple.*** Large, complex, and unwieldy User EHBs tend to intimidate and discourage potential users. The User EHB should act as an online tutorial to explain users' subprocesses. Keeping the User EHB sim-

> ## "SBIR outside reviewers are now able to access proposal abstracts in 24 hours."

---

public and private sector contracts through SBIR and are now well on their way to becoming successful and self-supporting enterprises.

### PROGRAM ADMINISTRATION

The SBIR Program is administered by the Small Business Administration, but that is not where funding occurs. Each agency that participates in the program has its own program manager and staff to administer SBIR/STTR programs.

Ten federal agencies (the Department of Defense (DoD), Energy (DoE), Agriculture (USDA), Education (DoEd), Commerce (DoC), Health and Human Services (HHS), Transportation (DoT), the National Aeronautics and Space Administration (NASA), the National Science Foundation (NSF), and the Environmental Protection Agency (EPA)) are required to set aside 2.5 percent of their extramural R&D budgets exclusively for SBIR contracts. At more than $500 million, DoD's program is the largest, with HHS in second place with $300 million. As departments, however, the National Institutes of Health manages the largest budget of almost $300 million with the Air Force coming in second at $193 million.

STTR is only offered at the five agencies with the largest R&D budgets—DoD, HHS, DoE, NASA, and NSF. STTR only receives one-half percent of the agencies' R&D budgets, but together with SBIR the total for them is 3 percent. Altogether, the SBIR and STTR Programs annually award more than $1.3 billion to inventors and small businesses to investigate and commercialize technologies.

Each of the participating agencies identifies various problems and needs that find their way into lists of R&D topics thought to require innovative solutions. These topics are then bundled together into 18 different

ple promotes user learning and an enhanced understanding of their responsibilities.

***Steps/Substeps Should Be Self-Explanatory.*** Users want to do their jobs as fast as possible and do not want to spend time reading unnecessary instructions. User EHBs steps should be self-explanatory so that users can be quickly prompted through the subprocesses.

***Learn From the Help Desk.*** When users have difficulties with their User EHBs, they often call the User Help Desk. Their problems should be recorded. Since the EHBs infrastructure is so flexible, most User EHBs can be quickly updated to eliminate any difficulties.

If these lessons are incorporated into future EHB design, proposal professionals will be working in a faster and more open environment. Electronic commerce will change the way everyone from both inside and outside the government deals with proposals from the very beginning of the solicitation process to the end of the contract.

## Conclusion: The Advantages of Using EHBs

Compared to current paper-based processes, there are many advantages to using EHBs to manage federal grant and con-

tract programs. As listed below, EHBs facilitate the seven stages of system development included in all information technology-based grant and contract programs.

***Requirements Capture.*** User EHBs reduce requirements capture costs. A Grants Program Manager can precisely communicate requirements to the end user by specifying the User EHB for that role. In addition, a Grants Program Manager can get feedback from potential end-users by displaying the user EHB on the Internet.

***Design***. User EHBs reduce design costs. Unlike other systems where there are system and user guides, *the system is the User Guide*. Consequently, there is no need for design once the requirements are captured via user EHBs.

***Implementation***. EHB file architecture reduces implementation costs because the EHB tree structure supports the use of Middleware, which eliminates a great deal of programming. Cost savings will depend on the type of Middleware used to bridge the EHBs and the database.

***Distribution***. EHBs reduce software distribution costs. This is because User EHBs are accessible via popular World Wide Web browsers.

***Learning***. User EHBs reduce end-user learning costs because User EHBs are self-documenting. User EHBs can lead the user step-by-step through the grants or contract process, and the availability of telephone accessible help

*more...*

---

agency-specific solicitations, which are distributed to interested individuals and small businesses.

### THE PROPOSAL/ GRANT REQUEST RESPONSE

The small business or individual inventor receiving one of these packages reviews the identified topics to determine if any are of interest. Applicants respond with a 25-page proposal. Typically, there will be 3-6 pages of forms included in the 25-page count limit.

### PROPOSAL EVALUATION CRITERIA

SBIRs are awarded competitively and take the following into account:
- The qualifications of the principal investigator and any other key staff
- The soundness and technical merit of the proposed approach
- The potential commercial applications for the technology
- The adequacy of the proposed effort to fulfill the requirements expressed in the research topic

As the SBIR program emphasizes innovation, special consideration is given to the originality of the concept in solving technological challenges identified in the solicitation. This is

a place in federal contracting where just addressing the government's problem is not enough by itself. In the SBIR program, the proposed solution must represent a demonstrable commercial business opportunity for the bidder.

### THE PROGRAM PLAN

The winner of an SBIR grant enters into Phase I of the program. Phase I grants are fixed price contracts and can be up to $100,000. They support research efforts lasting approximately 6-9 months. Phase I is pri-

*more...*

desks also promotes end-user learning.

**Maintenance**. EHB file architecture reduces system maintenance costs because the EHB tree structure is self-contained and supports the use of Middleware, which eliminates a great deal of programming.

**Adaptability to Similar Processes.** EHB file architecture reduces adaptation costs because the EHB tree structure is self-contained and supports the use of Middleware, which eliminates a great deal of programming.

"The process of writing EHBs lends itself to a common understanding of the activity the handbook is documenting," says Wayne Hudson, former Chief of NASA's Goddard Space Flight Center Technology Commercialization Office. "This is a tremendous benefit because many conflicts start from different understandings of the activity and its objectives. The EHBs yield a shared vision."

EHBs have saved federal agencies precious time and money while simultaneously enhancing the administration of their programs. In an EHB environment, everyone benefits—government officials, applicants, outside reviewers, and the general public.

EHBs are fundamentally changing the way proposal professionals work with federal agencies.

# References

FGIPC. "Bulletproof Vests System Wins FGIPC's 1999 GOLD IOSS AWARD." *Federation of Government Information Processing Councils* (FGIPC), June 22, 1999.

Friel, Brian. "Contract Cybernauts." *Government Executive Magazine,* August 17, 1997.

Gugliotta, Guy, "NASA Sets Sights on a 'Paperless' Planet," *Washington Post* (A11) August 19, 1997. (Federal Page).

Harreld, Heather. "NASA's Electronic Handbooks Offer Paper-Free Management." *Federal Computer Week,* August 18, 1997.

Hendrix, Susan M. "Department of Justice Invests In Goddard Technology." *Goddard News,* Goddard Space Flight Center, National Aeronautics and Space Administration, December 17, 1999.

Johnson, Doug. "Justice Department to Use Internet to Help Protect Officers." *United States Department of Justice Press Release,* April 19, 1999 (Photograph).

Makulowich, John. "NASA E-Commerce Solution Gains Attention." *Washington Technology,* October 8, 1998.

NASA. "NASA Tames a Paper Beast." *NASA Tech Briefs.* January 1998.

Steigerwald, William. "Time and Cost Savings Result From Internet Software Tool Developed For Electronic Process Management." National Aeronautics and Space Administration/ Goddard Space Flight Center Press Release. August 1, 1997.

Barry E. Jacobs is a Senior Research Computer Scientist at NASA Goddard Space Flight Center in Greenbelt, Maryland. Dr. Jacobs is the principal developer of the concept of Electronic Handbooks (EHBs), and has successfully applied EHBs across several federal agencies. His work on EHBs has earned him the NASA Medal For Exception Achievement and the Federation of Government Information Processing Council (FGIPC) Intergovernmental Open Systems Solutions (IOSS) Gold Award. He can be reached at Barry.E.Jacobs@ gsfc.nasa.gov or by phone at 301-286-5661.

marily intended to assess the feasibility of a new technology or concept.

Phase II awards are not as competitive and go to about half of the Phase I winners. These cost plus contracts can be for up to $750,000 and are typically for projects with a two-year duration. Awards for Phase II are based on the Phase I results and the scientific and technical merit of the Phase II Proposal. They are supposed to support the refinement, prototyping, and testing of the innovative concepts.

Phase III involves either private sector or federal agency funding (but funds must come from outside the SBIR program) to commercialize the technology.

## ELIGIBILITY TO PARTICIPATE

To participate in the program, the Phase I SBIR bidder must qualify as a small business as defined by the federal government. In most cases, a small business:

- Is independently owned and operated
- Is organized as a for-profit venture
- Has its principal place of business in the USA
- Is at least 51 percent owned by U.S. citizens/resident aliens
- Has no more than 500 employees

John Davis is General Manager of JADE Research Corporation, a commercial provider of business development resources to the SBIR community, including software-based proposal development tools and tutorials, bid information searches, bid matching services, direct consulting, and customized tools for SBIR/STTR procurements. Davis can be contacted at (410) 315-8101 or through his Web site: www.win-sbir.com.

# Developing International Proposals in a Virtual Environment

## A Cultural And Personal Perspective

*By EILEEN LUHTA MCFARLANE*

**T**oday, many international proposals are being developed in a virtual environment that spans countries, languages, and time zones. Despite rapid advances in information technology, successful international proposals still heavily depend on the ability to manage proposal teams effectively. With an international staff, this can be an especially daunting challenge.

The terms "virtual" and "international" are becoming synonymous in today's global business environment. While the virtual way of working is making the world a smaller place in which to do business, it is still considered to be uncharted territory in many companies.

With the Internet, the World Wide Web, and voice mail, companies no longer have to send proposal teams around the world. However, many companies find that using a virtual

environment to manage international proposals still involves its share of obstacles and challenges.

The most important attributes for a proposal professional in this evolving environment are flexibility, patience, sensitivity to cultural issues, and the ability to build solid relationships. As proposal management professionals, we must also help identify and then use the information technology, tools, and processes that can make our companies successful in this new environment. Addressing cultural challenges may be as critical to a company's success as the proposal team's technological infrastructure.

## CULTURAL ISSUES

I started working from my home office almost five years ago when I supported our Asia Pacific region. Working virtually made the most sense for each team member, mainly because of the vast distance between us. I was the only member of the team working from the United States, with my fellow team members spread across Asia.

I find that the most enjoyable part of a virtual and international environment is working with people from different backgrounds and perspectives. Everyone, regardless of their knowledge, can learn new things daily by interacting in this type of team. The interaction strengthens our proposals, increases our companies' chance of success, and builds stronger teams.

Of course, this interaction requires a fresh way of thinking. Many employees, who were used to working a certain way with familiar surroundings and the same team members, are now

> " **If e-mail is being used, the e-mail carrier should be the same for every team member.** "

finding themselves sharing ideas and goals with people of different languages and cultures. It can be a little scary and intimidating at first, but well worth the effort.

In this new environment, we should take the lead to keep up with the latest global events. We show our value by gaining this knowledge. Information is everywhere. I regularly read global news on the Internet, in the *Wall Street Journal,* and in other periodicals on a daily basis.

I stress education as a key to cultural understanding and knowledge. As proposal professionals, we should actively seek out information about different cultures, and about our clients and team members in different countries. Our own team members are a great source of information. The relationships we foster help us understand the cultures and countries where we work as part of a team. It is easy to gather information from international team members. Ask questions! Find out how people live and work. You will be amazed at both the similarities and the differences. As an added bonus, the interest we show our team members demonstrates that we care about them and about our ability to work together as a team.

## VIRTUAL PROPOSAL DEVELOPMENT
### Looking at the Entire Project

As proposal professionals, we know the steps involved in developing a winning proposal. When working in a virtual and international envi-

ronment, we use similar steps, but they must be adjusted accordingly for work in a different environment.

Proposal projects on an international scale require far-reaching project management skills, both literally and figuratively. This means first looking at the entire project and asking critically important questions, such as the following:

- What is the project and the international focus?
- Who are the clients? Are they in one country or numerous countries?
- What are their goals? What are their perspectives?
- What is the timeline?
- Who will be involved? What languages do they speak? What are their points of view?
- What expertise is needed and where will we get it?
- What roadblocks may we face?
- What is our process to get this proposal completed?
- How will we know if we are successful?

## Working With Virtual Proposal Teams

I have found that the most challenging part of working with a virtual proposal team is the lack of face-to-face interaction. While this can be further complicated by different perspectives, languages, cultures, and ways of working, these challenges can also be overcome. I am amazed at how well a virtual team can "gell" if the team dynamics are handled correctly.

Once the team dynamics have been established, the mechanisms to communicate must be put in place. The next step is to apply the right technological tools the right way, to ensure that the team can successfully work on the proposal. Of course, these tools may vary depending on your company and the way it works, its resources, and its potential clients. Workable technology is the foundation of a virtual and international team. Finally, legal issues should always be addressed. The number of legal issues that constantly crop up when going after international business can be overwhelming and sometimes discouraging, and they usually vary from country to country. The proposal manager must gather the right resources to ensure that all

> " *Addressing cultural challenges may be as critical to a company's success as the proposal team's technological infrastructure.* "

legal issues are addressed, and thus to protect the interests of his or her company and employees.

**People.** People are at the core of every project, and must be able to work well together. The most challenging part of the virtual and international proposal environment is building relationships with team members. Through a lot of trial and error, I have learned that experience is the best teacher and common sense is the best guide. A proposal manager will always be confronted with language differences, multiple time zones, and a wide variety of perspectives. These challenges can be handled and even embraced to enhance the proposal team and the proposal project.

**Language.** Companies often bring people together on proposal efforts based on their skills and particular areas of expertise. The language each person speaks is usually not an issue, but it does affect the team's ability to work together. This is where the proposal manager needs to make decisions regarding group dynamics.

When I look at the team, I determine how many languages are being both spoken and written. Each person has a primary and perhaps secondary language. One person may speak German fluently, with French as his second language, and English as his third. Or, they may be able to write well in French, but understand little English.

I always make a point to explain to each team member, either myself or through an interpreter, how much I value their input, and that we will work through any language differences. I have worked with people who were uncomfortable and even frustrated with their particular language skills. I reassured them that they were included in our team because of their knowledge and expertise and that we could resolve any language issues.

No one should ever feel left out or ignored simply because they speak a different language, and language differences should never become an issue that interferes with the proposal's success or a team member's contribution. It is critical that every piece of information from the team be captured and

*more...*

understood. Identifying levels of language comprehension is especially critical when translations are involved. Because simple sentences can be misconstrued, and meanings can be lost, language identification should be accomplished before the team provides any input.

I therefore arrange early on for liaisons who are fluent in team member languages to ensure that all team members receive the same messages and contribute equally to the project.

The proposal will most likely need to be produced in one or more languages. In most cases, the proposal is produced in English and also in one or two other languages. These requirements are usually dictated by the client, and should be identified prior to the starting the proposal effort. The proposal manager must build enough time into the proposal schedule for translations. This phase of the proposal is critical.

Because I have never spoken a foreign language, I am constantly amazed at all the details involved in translation. Some translations take longer than others, depending on the proposal's complexity and the language itself. The main lessons I have learned through experience are the length of time needed to get a

document translated, and the variations that can occur in translation accuracy and timeliness.

When choosing a translation company or individual, look for one with a proven track record with proposals. If you have not used a particular company before, provide translation samples as a "test." Ask a team member who is fluent in that language to double-check the company's work. Most importantly, verify the charges and timing of translating text that changes at the last minute. While these types of changes are usually unavoidable in the proposal environment, they can significantly impact the translation process. Building extra time into the proposal schedule for translation is a must.

**Personalities.** As with any proposal effort, the ability of the virtual team to successfully work together is key. Personalities always play a part in teamwork. Groups separated by time, distance, and language have an even more challenging time getting to know one another. The proposal manager should take the lead to ensure that every team member, regardless of location or background, feels valued and included.

I have found a few interesting ways to help team members learn about one another. In our teleconferences or videoconferences, I take the time for team-building exercises by asking people about their typical day, commute, or favorite hobby. People often open up easily. I have also discovered that a sense of humor is universal! Virtual teams find that people throughout the world have a lot more in common than they originally thought.

The key to virtual team dynamics is understanding. A close-minded point of view cannot be tolerated. The proposal manager should figure out each person's perspective and how he or she enhances the proposal effort. Once this link is made, the team will begin to gell as a group working toward the common goal of a successful proposal.

**Distance and Time Zone Challenges.** Distance and time zone challenges are a fact of life for the vir-

> ❝ **The most challenging part of working with a virtual proposal team is the lack of face-to-face interaction.** ❞

> **"A virtual, international proposal environment is not possible without a strong technological backbone."**

tual and international team. The proposal manager needs to take the lead in determining how the team can best work together. I try to be fair when considering everyone's work habits and productivity. I also consider the peaks and valleys of an individual's work energies.

Team members should feel that they can be highly productive without working day and night. When I work on a team with members in both the United States and China, I arrange meetings and deadlines to accommodate both time zones. We take turns with meeting times so that one group does not feel constantly inconvenienced. Time zone differences can allow work flow to be arranged so that the work one team has completed can be sent to the other team members as they are starting their work day.

## Information Technology Infrastructure

**Information Technology.** A virtual, international proposal environment is not possible without a strong technological backbone. The most effective technology is dependable, easy to understand and use, and accessible by all team members. Uses of technology may differ from company to company depending on their lines of business, client needs, and nature of company operations. However, there are basic technology needs that affect all companies.

A company must have a solid information technology infrastructure and processes in place to support that infrastructure. The infrastructure and processes should be clearly understood by the proposal manager. Proposal support mechanisms should work in conjunction with the infrastructure. The proposal manager should educate the team on how technology will be used for the particular proposal effort.

Make sure that each team member understands the tools, why they are being used, and how they will help in completing the proposal project. Ideally, the proposal team should be ready with this understanding the day the proposal effort actually begins. Preplanning should include a cursory check of each team member's level of comprehension of the tools being used. I use mentors within the team who are most familiar with the tools to help others gain the skill and confidence to effectively use available information technology.

**Technology Standards.** Each company should decide which technology standards best meet their global business needs. Ideally, everyone at the company, especially those in proposal roles, should share the same types of personal computers, peripherals, and other hardware, and should be trained in their use. All employees should have access to compatible software with the most current versions. Local Area Networks (LANs) and Wide Area Networks (WANs) should be set up with compatibility in mind.

Use of company Intranets and the Internet should be clear and understandable. Proposal teams should know where to go to access company and client information. If e-mail is being used, the e-mail carrier should be the same for every team member. If not, formatting problems are likely to occur, and there may be significant time lapses in receiving e-mail. These lapses must be noted and scheduled into the project timeline.

Sometimes, in the rush to get a proposal project started, assumptions are made about everyone's understanding of the technology being used. I have learned to always check with members to find their comfort level, so they can provide the most productive contribution from the beginning of the project.

**Technical Support.** Technology is only as good as the technical support available. Help desks and available on-site technical support are critical to a virtual international proposal effort. All team members should know who they can contact to solve technical problems. Depending on the company, technical support should be available during the hours the particular team is working. On-site technical support may mean driving to a predetermined location if hardware fails. I always ask the team to inform me about technical difficulties, because these difficulties may signify more complicated problems.

**Contingency Plans and Legal Issues.** Planning for the worst is not being pessimistic—it is being realistic! Backup plans for hardware failures, network problems, and even natural disasters must be communicated to all team members. The odds of these problems occurring may be slight, but their effects could devastate a proposal project.

At a minimum, all team members should be instructed to regularly save all their files to a disk (and to the system in use),

*more...*

and to follow version naming conventions according to the project standards. All files should be swept regularly for viruses, and all viruses reported to the proposal manager. Care should be taken to encrypt files when sending them via internal or external e-mails.

Legally, the proposal manager should receive counsel prior to the start of the proposal regarding import and export compliance laws, work laws, and country-specific laws that pertain to the use of information technology. In some countries, even seemingly minor infractions can have serious legal consequences.

## Project Planning and Communication Mechanisms

Working on a proposal in a virtual and international environment requires a different approach to the communication mechanisms commonly used when teams are in the same building. The common thread binding effective virtual and international communication is consideration for team members and clear, concise, to-the-point interactions.

**Meetings.** Regular meetings should be carefully thought out in the virtual and international environment. Prime consideration should be given to team members, language differences, and time differences. Varying meeting times ensures that no one person feels constantly inconvenienced. When meetings need to be held very early or very late in the day, the times can be rotated to show consideration for team members.

I regularly include a note taker and language-expert liaisons in meetings to help capture team member inputs. Each member brought into the project provides essential expertise that should not be lost simply because of language differences. This approach also shows each team member that they are respected and valued.

**Written Communication.** Brevity should be the rule for all written communication passing throughout the team. Considering the language differences, virtual environment, and proposal project complexity, clear, concise communication ensures that no misunderstandings occur. The same holds true for the proposal

> " Time zone differences can allow work flow to be arranged so that the work one team has completed can be sent to the other team members as they are starting their work day. "

going to the client. Clear, concise writing is always the goal.

Any questions regarding submitted text should be handled directly and personally, with decisions made before the proposal gets too detailed. I make a point of understanding each team member's writing ability so I can plan for any additional writing and editing assistance. After all, most subject matter experts, regardless of their language, were brought in for their knowledge, not necessarily for their prose style. The first few critiques of team member submissions should be handled personally so team members understand what is expected of them. Any unclear issues can be addressed through language liaisons.

I have found that excellent editors are invaluable to a virtual and international proposal effort. They can take rough but content-rich text and turn it into clear, understandable prose.

## CONCLUSION

The virtual proposal environment is rapidly becoming more commonplace as more companies become global enterprises. When companies are wary of managing proposals in an international environment, proposal managers can take the lead by showing how virtual and international proposals can be successful.

Working successfully in a virtual international environment encompasses far more than just choosing and using the right information technology. While a strong technological backbone is critical to a winning proposal, it is equally important to successfully address the cultural issues that inevitably appear every day when you work with people whose languages and cultural backgrounds differ from your own.

Ms. Eileen Luhta McFarlane has worked for 14 years on proposals for EDS, Inc. She is currently a Regional Consultant for EDS's E.solutions Sales Central group, which provides proposal support in the electronic commerce arena. She works from her home office in Chagrin Falls, Ohio, and can be contacted at eileen.mcfarlane@eds.com.

# From Ancient Pompeii to Modern Baseball

*By DR. JAYME A. SOKOLOW*

*Virtual reality is a cutting-edge technology that gives participants the feeling they are immersed in a seemingly real world that is actually synthetic and artificial. Virtual reality concepts and techniques, however, have been around a long time, and have appeared in many unusual guises, from the frescos of ancient Pompeii to signs used in modern baseball.*

A fifteenth-century Italian artist, Andrea Mantegna, used a realistic urban landscape to create the illusion of three-dimensional people and buildings in this vivid example of trompe l'oeil painting.

Virtual reality is a computer-generated interactive environment that ranges from text-oriented online chat rooms to complex simulations with audio, video, animation, and three-dimensional graphics. Virtual reality systems include video arcade games, flight simulators for training airplane pilots and astronauts, and modeling programs for architecture, industrial design, medicine, and art. The goal is to give participants the feeling of being immersed in a real environment without the associated logistical problems, expense, or danger.

Today, the word "virtual" has become so fashionable that it often used as a prefix to mean "without boundaries or constraints." We now have virtual communities, virtual compa-

nies, virtual circuits, virtual libraries, and virtual desktops. A recent anthropological study of the Everest region in Nepal even refers to virtual Sherpas! Virtual reality, however, is not a 20th century phenomenon. Both fictional and real virtual reality systems have been widely used from time immemorial. With a large dose of levity and an even bigger suspension of disbelief, the following examples could qualify as some of the many precursors to today's virtual reality.
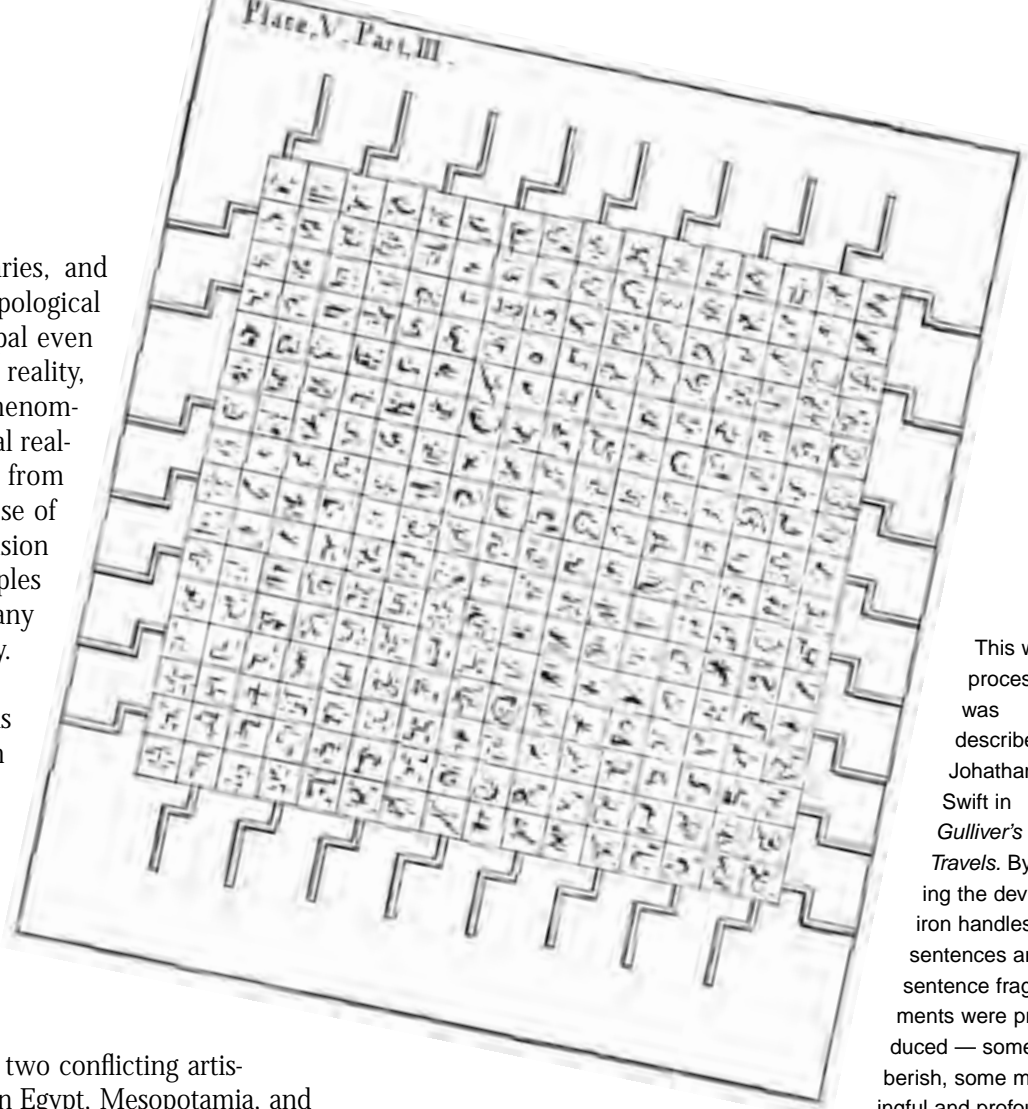
## The First 3-D.

*Trompe l'oeil* is a French term meaning "deception of the eye" and is used to describe paintings that are so lifelike as to appear real. More than 2,000 years before the development of three-dimensional computer graphics, *trompe l'oeil* produced the illusion that flat surfaces actually had depth.

*Trompe l'oeil* developed out of two conflicting artistic impulses in the ancient world. In Egypt, Mesopotamia, and Crete, artists cultivated flat surfaces and linear design, using shading and modeling to create a sense of relief and depth. In ancient Greece and Rome, on the other hand, artists tried to represent volume and the three dimensions by using *trompe l'oeil* effects. Frescos preserved in the volcanic debris of Pompeii are the first evidence of attempts to overcome the limitations of two-dimensional wall space by painting illusory landscapes and buildings.

In 14th century Italy and Flanders, *trompe l'oeil* appeared again as artists such as Giotto and Klaus Sluter tried to represent solidity and contours by imitating statuary in their paintings. In the next century, artists painted picture frames with hands, feet, or heads protruding, or put convex mirrors into their interiors that reflected objects in the foreground of their paintings.

*Trompe l'oeil* flourished in Renaissance and Baroque art because of a growing interest in perspective and the artistry of ancient Greece. Artists used this technique in villas, palaces, and grand theaters, especially in northern Italy, to create the illusion of outdoor scenery on interior walls. Although *trompe l'oeil* declined as an artistic technique by the end of the 18th century, there are still some American and European artists who paint in this style.

In 1700, Andrea Pozzo, who had decorated the interior of a Venetian church with numerous illusory effects, summed up the



This word processor was described by Johathan Swift in *Gulliver's Travels.* By turning the device's iron handles, sentences and sentence fragments were produced — some gibberish, some meaningful and profound.

enduring appeal of *trompe l'oeil* when he wrote that people enjoyed this technique because it was intended to "deceive the eye. . . .I even remember having seen people who set out to climb a staircase, and only realized their mistake when they laid a hand upon it." This was nearly 300 years before the invention of computer-generated 3-D data gloves and stereoscopic goggles!

## The Quest for Artificial Intelligence.

According to Jonathan Swift, in 1707 Lemuel Gulliver was attacked by pirates on his way to the East Indies and set adrift in a small canoe with paddles, a sail, and meager provisions. Five days later, he came ashore on the small flying island of Laputa and later visited the Grand Academy of Lagado on the nearby island of Balnibarbi.

Here he observed diligent scholars extracting sunbeams from cucumbers, turning human excrement back into its original food, building houses "by beginning at the roof and working downwards to the foundation," and curing flatulence with a large ivory-tipped bellows. Gulliver was most impressed, however, by a remarkable device invented to improve "speculative knowledge by practical and mechanical operations."

It operated in a very simple manner. The professor's pupils stood around the device—a 20 square foot wooden frame

with 31 iron handles. Inside the frame were 256 small pieces of wood (16 on each side) linked by wires with paper pasted on all sides of the wooden squares. Each piece of paper had "all the words of their language in their several moods, tenses, and declensions, but without any order." At the professor's command, his pupils quickly turned the iron handles and then quietly read the sentences produced by the device. Not surprisingly, almost all of them were complete gibberish.

But when the pupils found three or four words that made sense together, they recorded them. By operating his machine six hours a day, the professor had already been able to write several volumes of broken sentences, which, when pieced together, would eventually "give the world a complete body of all arts and sciences."

According to the enthusiastic professor, his invention was designed to solve a very old and pressing problem—gross stupidity. Since it was so difficult

> **In March 1848, the Fox family was frequently awakened by unearthly noises. The two youngest daughters discovered that they could communicate with the restless spirit, who claimed to be a murdered peddler buried in the cellar of their home.**

and time-consuming to become learned, his device would enable ignorant people to easily produce profound studies in philosophy, literature, law, politics, theology, and mathematics "without the least assistance from genius or study."

Gulliver was so impressed by this word processor that he drew a picture of it and assured its creator that he would acknowledge the professor "as the sole inventor of this wonderful machine," despite the fact that "it was the custom of our learned in Europe to steal inventions from each other." For all we know, efforts to recreate the machine began after Gulliver's return to England and may still be underway.

**Fox Signals.** Do you yearn to communicate with the next world but still prefer to remain among the living? The Fox sisters became infamous for their solution to this conundrum in 19th century America.

In 1847, the Fox family moved into a wooden cottage in the small town of Hydesville, outside Rochester, New York. The father was a devout farmer. His oldest daughter, Leah, taught music in Rochester while his two younger daughters, Margaretta and Katie, aged 15 and 12, lived at home with their superstitious mother.

In March 1848, the family was frequently awakened by unearthly noises. Margaretta and Katie discovered that they could communicate with the restless spirit, who claimed to be a murdered peddler buried in the cellar of their home. By mysteriously creating rapping sounds for the words "yes" and "no," the two sisters were able to coax him into identifying the location of his pitiful remains.

After hundreds of people were attracted to the Fox house, Margaretta and Katie began producing rapping sounds wherever they went. With Leah as director, her sisters' public seances became a sensation in Rochester and Albany. Some of their supporters also communicated with the dead, spoke in strange tongues, levitated tables, and played musical instruments without ever touching them. After the Fox sisters gave a public demonstration of their powers in New York City, Horace Greeley's *New York*

The Fox Sisters - 19th century America's most famous clairvoyants.

*more...*

*Tribune* gave them favorable publicity and they toured the Northeast to demonstrate their remarkable abilities.

Opinion differed as to the girls' purported ability to converse with the dead. An investigative committee in Buffalo claimed that the girls produced the strange rapping noises with their toe joints. Margaretta and Katie vehemently denied this. Meanwhile, John Worth Edmonds, a judge of the Supreme Court of New York, investigated the Fox sisters and concluded that they were authentic seers. He felt so strongly about their powers that he resigned from the Supreme Court and became a medium, as did his daughter.

The Fox sisters' spectacular success launched the American spiritualist movement. Many newspapers devoted to occultism appeared, spiritualist camp meetings were held throughout the Northeast and Midwest, and adherents estimated that up to two million Americans supported spiritualist principles. Most of them were well-educated Anglo-Saxon middle- and upper-class



Thomas Edison's dictaphone.

men and women who rejected religious orthodoxy and yearned for "sights and sounds of ultramundane origin."

The stress and strain on the country's most famous mediums eventually took its toll. In 1857, Leah retired from the spiritualist circuit and married a wealthy businessman. Margaretta and Katie became alcoholics and later confessed to being frauds.

Despite their shocking admissions, spiritualism became a respectable alternative to mainstream Protestantism in Victorian America. Today, as occultism grows in popularity in the shadow of the millennium, numerous books and Web sites honor the Fox sisters for their remarkable occult powers.



> Few people realize that Edison's 1871 courtship of Mary Stilwell, his first wife, also made him a pioneer in digital communication.

### Thomas Alva Edison's Digital Technology.

Thomas Alva Edison (1847-1931) was the greatest inventor the United States ever produced. He patented more than 1,000 inventions, including the carbon microphone (1877), record player (1878), and kinetoscope, or motion picture projector (1891). Edison developed the first useful incandescent electric light bulb in 1879, and the first sound motion pictures in 1913. His workshops in Menlo Park, Newark, and West Orange, New Jersey were pioneering industrial research laboratories that specialized in the rapid invention and commercialization of products.

Edison's many inventions had a profound effect on the development of modern society. Few people realize, however, that Edison's 1871 courtship of Mary Stilwell, his first wife, also made him a pioneer in digital communication.

In April 1871, Edison returned from his mother's funeral in Michigan. The budding inventor was a shy 25-year-old bachelor still living in a rented room in Newark, New Jersey, where he designed and manufactured products for automatic telegraphy.

Three weeks after the funeral, Edison's widowed father (in his seventies) married his 16-year-old former housekeeper and later sired three children. That fall, Edison began seriously courting a pretty 16-year-old telegraph tape perforator, Mary Stilwell, who worked in one of his Newark factories, the News Reporting Telegraph Company. Edison, who was slightly deaf, enjoyed "standing nearby observing her as she drove down one key after another with her plump fingers" until he summoned the courage to talk to her.

One day he asked her, "what do you think of me, little girl, do you like me?" Ms. Stilwell was frightened and could hardly reply. "Don't be in a hurry about telling me," Edison said reassuringly. "It doesn't matter much, unless you would like to marry me. Oh, I mean it," he continued. "Think it over, talk to your mother about it and let me know as soon as convenient; Tuesday, say. Next week, Tuesday, I mean."

In the courtship that followed, Edison considered his growing deafness an asset rather than a liability. "It excused me for getting quite a little closer to her than I would have dared in order to hear her," he said. "If something had not overcome my natural bashfulness, I might have been too faint of heart to win. And after things were going nicely, I found hearing unnecessary."

How does this awkward love story relate to digital technology? While Thomas and Mary sat together courting in the parlor under the watchful eyes of her parents, they developed a way to communicate privately without talking or writing to each other! Although Edison was mildly interested in spiritualism as a young man, his strongest beliefs involved telegraphy, not telepathy. As a result, he taught his fiancee Morse code and tapped out messages on the palm of her hand with a silver coin.

On December 25, 1871, Mary Stilwell and Thomas Alva Edison were married. Their courtship was the happiest time of their lives together. Edison was a compulsive inventor who spent little time at home, leaving his wife feeling lonely, unloved, and neglected.

## Signals and Relays.

Long before digital technology, signals used around the world for long-distance communication included smoke signals, drumming, and semaphores. Today, perhaps the most unusual of these signals are baseball signs.

Any Yankee fan will tell you that baseball originated in New York City in the decades before the Civil War when teams developed a new game that they called "base" and later "baseball."

The first professional league was established in 1871. Within two decades, the first salary cap ($2,500 a year) appeared because owners claimed their teams faced bankruptcy. To help meet the payroll, poorly paid players sold tickets and cleaned the ballpark to earn their keep.

As the game became more professional and sophisticated, players pioneered in the development of signals and relays. Today, baseball signals are an important, if little understood, aspect of the game because they allow players to coordinate their field activities without giving away their intentions to the opposition. There are many different kinds of baseball signaling systems. The best ones are consistent and easy to understand, at least for the teams using them.

## Third Base Coach to Batter and Runners.

The manager in the dugout relays signals to the third base coach, who then signals the batters and runners to

- Take the pitch
- Hit-and-run
- Steal
- Double steal
- Fake bunt and full swing
- Squeeze bunt
- Sacrifice bunt.

Third base coaches use an indicator sign, saying that the next sign will be the right signal. They usually go through many body gyrations before giving

*more...*

the indicator sign so that opposing players cannot decode their instructions. The indicator might involve touching the left elbow with the right hand or touching the chin. Then the coach signals the play. Touching the cap may mean a bunt while touching the right shoe may signify a steal.

Third base coaches also use a wipe-off sign to indicate they have made a mistake or are changing the previous signal. Often it involves literally wiping the hand across the chest or down the arm.

**Batter and Runners to Third Base Coach.** The batter and runners then use a subtle gesture to show that the sign was understood or that the coach should signal again. Interestingly, there seems to be a universal sign for failure to understand—rubbing your hand across the letters of your shirt. As the great Yankee catcher and philosopher Yogi Berra pointed out, "you can't hit and think at the same time."

**Pitcher to Catcher in Warm-ups.** When pitchers enter a game or start an inning, they get eight warm-up pitches. Pitchers use five signals to tell the catcher what to expect:
- *Fastball*: put palm toward the ground with a take-off motion.
- *Breaking ball*: twist arm or wrist in counterclockwise motion.
- *Change-up*: extend arm with the ball and pull it toward chest.
- *Knuckleball*: extend and wiggle arm with the ball.
- *I'm finishing warming up after this pitch*: put glove hand over shoulder.

**Catcher to Pitcher.** Catchers tell the pitcher what to throw by signaling with their fingers between their thighs so opposing teams cannot read the signs. With no runners on base, signs are very straightforward. One finger might signify a fastball while two fingers indicate a curve. Catchers may also signal where they want the pitch thrown (low outside or high inside the batter, for example). With runners on base, signaling becomes more complicated.

**Pitcher to Catcher.** The pitcher can either accept the catcher's sign or ask for another one. Pitchers may subtly nod or just pitch if they agree with the catcher's sign. They usually indicate disagreement by slightly shaking their heads or flicking their gloves.

Pitching is a fine art. As Robert Frost once said, "nothing flatters me more than to have it assumed that I could write prose—unless it be to have it assumed that I once pitched baseball with distinction."

It may be true, in the immortal words of Yogi Berra, that "in baseball, nobody knows nothing." Nonetheless, baseball's unique signals and relays make it possible for everyone to understand and play the game a little better.

# Conclusion

From the frescos of ancient Pompeii to the World Series, virtual communication has always been with us. Computer-generated interactive environments may be realistic and exciting to use, but can they provide the joy that comes from seeing a fine *trompe l'oeil* painting, cleverly conducting a romance, or watching a third base coach give a batter the squeeze bunt sign in the bottom of the ninth inning with the score tied? If art, memory, courting, sports, and the pursuit of knowledge can be so richly virtual, then virtual reality is not just digital technology. It is far more.

# References

Adams, Vincanne. *Tigers of the Snow and Other Virtual Sherpas: An Ethnography of Himalayan Encounters*. Princeton, NJ: Princeton University, 1996.

Baldwin, Neil. *Edison: Inventing the Century*. New York: Hyperion, 1995.

Bakalar, Nick. *The Baseball Fan's Companion: How to Watch the Game Like an Expert*. New York: Macmillan, 1996.

Cross, Whitney R. *The Burned-Over District: The Social and Intellectual History of Enthusiastic Religion in Western New York, 1800-1850*. New York: Harper & Row, 1965.

Helyar, John. *Lords of the Realm: The Real History of Baseball*. New York: Villard books, 1994.

Josephson, Matthew. *Edison: A Biography*. New York: John Wiley & Sons, 1959.

*Larousse Encyclopedia of Renaissance & Baroque Art*, trans. Emily Evershed, Hugh Newberry, Ralph de Saram, and Katherine Watson. New York: Excalibur Books, 1981.

Lopez, Andy. *Coaching Baseball Successfully*. Champaign, IL: Human Kinetics, 1996.

Moore, R. Laurence. *In Search of White Crows: Spiritualism, Parapsychology, and American Culture*. New York: Oxford University, 1977.

Swift, Jonathan. *Gulliver's Travels and Other Writings*, ed. Louis A. Landa. Boston: Houghton Mifflin, 1960.

Jayme A. Sokolow, Ph.D., is founder and president of The Development Source, Inc., a proposal services company located in Silver Spring, Maryland, that works both with businesses and nonprofit organizations. He is also Chair of the Editorial Advisory Board of Proposal Management. He can be reached at JSoko12481@aol.com.

# AN Architectural Proposal IN THE Modern Vein

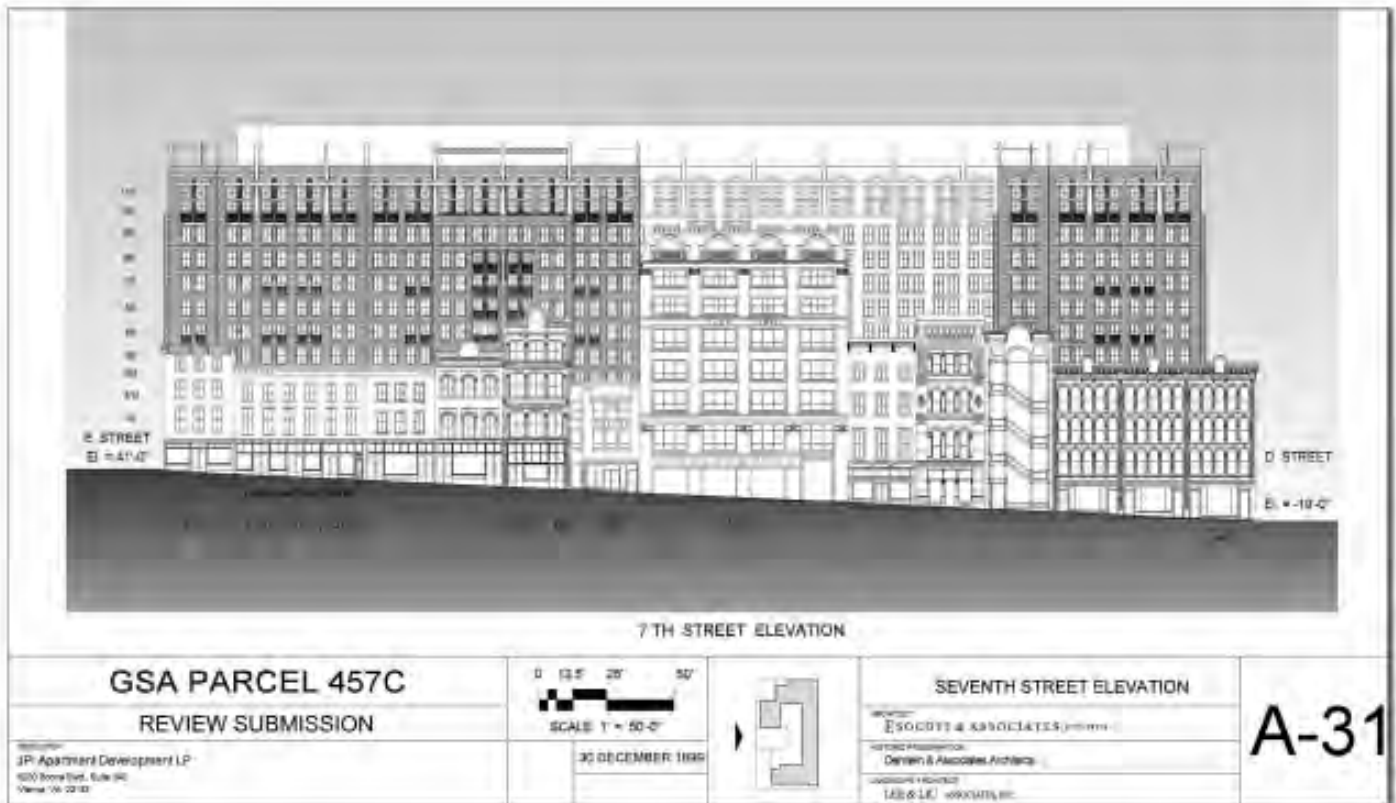*A Case Study from the Semi-Automated World of A/E/P Procurement*

### By ROBERT L. MILLER, AIA

Architecture/Engineering/Planning (A/E/P) proposals usually combine traditional narrative accounts of an applicant's experience, qualifications, and plans with striking visual designs that convey the architect's vision and excitement. In this case study, a diverse 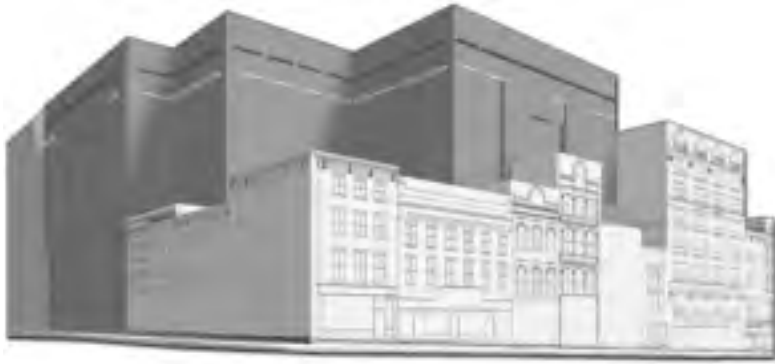team developed a winning proposal to the General Services Administration (GSA) to help redevelop a block in downtown Washington, DC. This proposal combined high tech and old-fashioned selling.

Are A/E/P professionals on the leading edge of proposal automation? Yes, but the edge could be sharper. In the past few years, many offices have made dramatic leaps, shifting from cut-

GSA PARCEL 457C
REVIEW SUBMISSION
JPI Apartment Development LP

SCALE 1" = 50'-0"
30 DECEMBER 1999

SEVENTH STREET ELEVATION
Esocoff & Associates
Devrouax & Associates Architects
Lee & Liu Associates, Inc.

7TH STREET ELEVATION

A-31

With computer-aided design (CAD), project elements—restored historic facades, existing storefronts, new apartments—are drawn and redrawn as separate layers, and later "flattened" into one image like this Seventh Street elevation.

Perspective renderings are powerful sales tools, and have employed painstakingly constructed base drawings since the Renaissance. CAD lets the artist compare and use alternate views. In this example, the computer-generated base drawing at left served as a foundation for the watercolor rendering at right.

and-paste, hard copy production to digital publishing, modeling, and animation. This has raised the public's expectations.

Architect Frank Gehry's much-photographed Guggenheim Museum Bilbao, for example, has reestablished a link in the public's imagination between high tech architecture and high technology. This link reappears through history, from the pyramids and cathedrals to the first skyscrapers. However, the difference this time is how technology is chiefly applied: not in making the building stand up, but in imagining and describing it.

Thanks to computers, the sculptural swoops of a late Gehry design, almost incomprehensible in conventional plans and elevations, can be economically translated into drawings usable by contractors, fabricators, and building inspectors. Computer graphics can construct a lifelike, on-screen model, taking designers and their clients (not to mention financial backers and public approval agencies) on a virtual tour of the end product.

Elsewhere in the field of A/E/P services, interior designers change laminate office furniture to wood with the click of a mouse; civil engineers build cyber-models of highway bridges at rush hour; and urban planners sketch a new park in an all-night town meeting. They return with approved drawings the next day. These simulations go into each firm's portfolio and reappear on paper or on screen, as part of the process of obtaining new business.

A typical example of a contemporary A/E/P procurement is GSA Parcel 457-C, which kicked off with an Offerors Conference in October 1998 and culminated with a design team award in October 1999. As the procurement's $100 million revitalization project for downtown Washington, DC, illustrates, today's increasingly complex method of awarding A/E/P contracts more often supports a technological mixed bag: a base of gradually modernizing proposal production, occasional ultra-high tech flourishes, and the persistence of an old-fashioned, personal sales pitch.

Architectural proposals have long had one foot in a world of meticulous RFP responses and the other in a land of spellbinding images and old-time selling. The most rational, technical selection process still finds personal credibility and charisma irresistible. The tale of architect Philip Johnson's winning bid to design AT&T's Manhattan headquarters—consisting entirely of an off-the-cuff conversation with the selection committee—may be part legend. When design is a factor, one principal's passion can still outweigh credentials and slick graphics.

Today, an added level of complexity comes from a trend to include designers in a pre-formed

*"Architect Frank Gehry's much-photographed Guggenheim Museum Balboa has reestablished a link in the public's imagination between high tech architecture and high technology."*

**—Robert Miller**

'design-build' or 'design-develop' team. Competitors can present and clients can choose a cohesive, project-specific, and often fixed price proposal, rather than an assortment of credentials. The biggest drawback (apart from compromising the professional's traditional, independent role as owner's agent) is that quantitative and qualitative design data are lumped with the team's capabilities and other criteria, and must be evaluated together.

In Washington, DC, such complexity challenged even a sophisticated client: the General Services Administration (GSA), landlord and builder for most civilian federal government agencies. GSA acquired the unfamiliar task of selling a key piece of downtown Washington, DC, land, with the mandate to get the best price and to ensure design quality and development success. The process also proved challenging to the ultimately successful purchaser, the Texas-based housing developer and manager, JPI Apartment Development LP.

GSA had inherited Parcel 457-C from the Pennsylvania Avenue Development Corporation (PADC) in 1996. The 76,000 square foot half-block, on the city's Seventh Street "arts corridor" between D and E Streets, NW, had long been targeted for market-rate housing. The parcel's large vacant interior lies behind historic commercial buildings, including Red Cross founder Clara Barton's Civil War apartment. City and PADC guidelines called for a new-old combination of apartments, restored retail frontage, arts facilities, and parking.

GSA sought a private developer to continue PADC's charge. To accomplish its larger objective of getting the best overall result for the government and city, GSA solicited proposals from teams led by a developer/buyer and included an architect and other A/E/P consultants. Design was a major deciding factor.

Selection on these terms was not entirely new to GSA, where policies promoting economy and privatization have increasingly led to design-build/design-develop contracts. Meanwhile, GSA Public Buildings Service reasserted its historic public mission through its *Design Excellence Program*, which employs a two-stage review and an in-house expert panel to link top A/E/P talent with federal projects.

Both design-build and design-develop projects and the *Design Excellence Program* are said to streamline A/E/P hiring. However, weighing objective qualifications and evaluating talent and vision resist simplification. Adding development and financial credentials makes the selection process even more complex.

As GSA fleshed out its RFP, a rising downtown economy, successful PADC-sponsored apartments nearby, and such neighbors as the new MCI Center arena and Shakespeare Theater encouraged the call for approximately 50 percent more housing units than PADC had foreseen, reaffirming "living downtown" as a top priority. The agency also demanded high standards for arts-related uses, preservation, and design.

## GSA Parcel 457-C Procurement Schedule

Offerors Conference ................................October 26, 1998

Property Tours ..................................November 9-20, 1998

Closing of Q&A ......................................December 9, 1998

Phase I Proposals Due ...........................January 20, 1999

Short list Announcement .................................March 1999

Phase II Submissions Due ..................................May 1999

Phase II Design Evaluation ...............................June 1999

Phase II Award .............................................October 1999

Of course, the development team's cash offer for Parcel 457-C would also help identify the proposal that delivered, as the GSA RFP stated, "the greatest overall value to the Government, price and other factors considered."

Using a modified version of its own *Design Excellence* procedure, GSA split its *ad hoc* selection process into two phases. Phase I would screen all RFP respondents based on three broad criteria: qualifications (team experience, finances, and affirmative action plan), which would outweigh the coequal factors of program (housing, arts facilities) and price. Only in Phase II would a selected short list of teams be asked for illustrated design portfolios, detailed drawings, descriptions of architectural and preservation elements, and statements of design philosophy and commitment to the project.

As marketing communications specialists serving the A/E/P professions, our firm became involved on behalf of the team headed by JPI Apartment Development LP with local architects Esocoff & Associates. The JPI-Esocoff team found a relatively clear path to GSA's Phase I short list, having submitted well-received credentials for an earlier public-private project a few blocks from Parcel 457-C.

In many ways, the team's Phase I submission made our Phase II contribution easy.

JPI, known for its market research, its financing alliance with GE Capital, and an extensive apartment portfolio, had gone for a maximum housing scheme of 397 units, well beyond the RFP's requirements in both number and square footage.

The team's lead architect, Phil Esocoff, had won awards for downtown housing and mixed-use projects before leaving a local firm to start his own office.

In addition, although the RFP did not ask for a physical design in Phase I, it did not prohibit one, either. JPI needed

*more...*

graphic confirmation that the proposed 397 housing units, in addition to the required retail/arts space, open space, and parking, would fit on the site. Years ago this test might have employed rough, hand-drawn plans and sections that were reasonably accurate, but only internally presentable.

In today's high-tech world, Esocoff's computer-aided design (CAD) capabilities—based on MicroStation SE, a software package especially applicable to 3-D concept designs and presentations—made it cost-effective to create schematic plans, sections, elevations, and perspectives. These turned the graphic model into accurate, convincing, and publishable Phase I drawings.

Similarly, automation made it simple to turn the required written qualifications—lists and descriptions of past projects, professional resumes, and the like—into something close to the required design portfolio in Phase II. The Federal Standard Forms 254/255 for A/E/P procurement data, intended as a graphic "level playing field," were already being modified in pre-computer times, as proposal coordinators hand-pasted tiny copies of project photos in the appropriate boxes. Now standard practice recreates the whole form digitally, exploding the original layout to accommodate large color images and typographically appealing descriptions.

Other team consultants included a local developer with recent PADC housing experience, a preservation architect who had restored other buildings on the same block, a major construction company, a downtown-based landscape architect, and a top real estate lawyer. Although most of these firms were locally based, their written credentials, such as those from JPI's Texas headquarters, were custom-formatted on each firm's computers and assembled via e-mail. As an added programmatic edge, and answering the hope that Seventh Street might become a theater district, the team had held discussions with the Woolly Mammoth Theatre and its community outreach school to occupy a proposed new facility on site.

In short, the JPI team's Phase I presentation had anticipated all but a few requirements of Phase II and made a strong case. Beyond the excellent qualifications common to all three shortlisted teams, the JPI team felt it had an edge when it came to the program—more housing units, Woolly Mammoth—and believed it offered a good price, ultimately revealed to be $16.5 million.
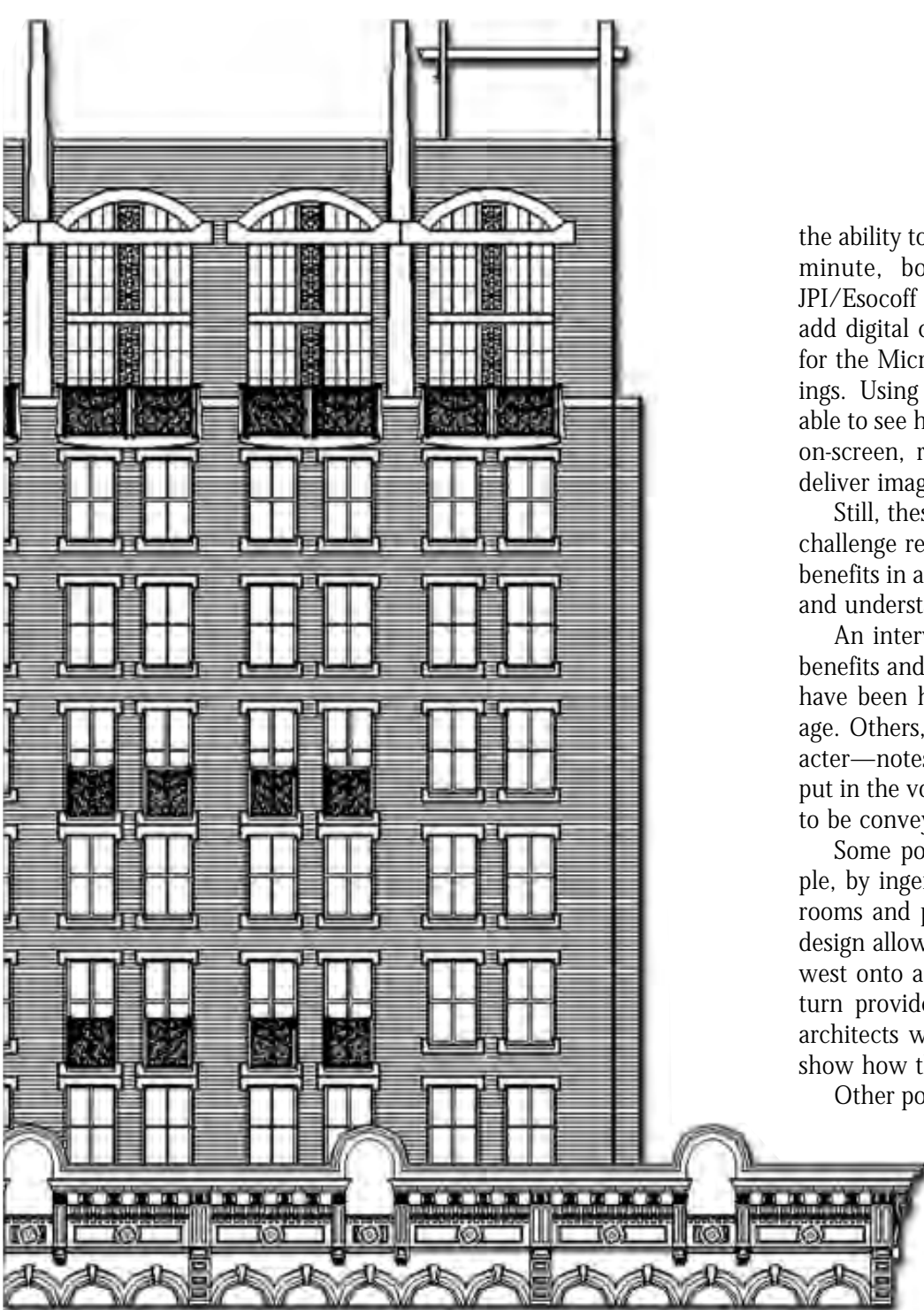
Going into Phase II, in fact, it seemed JPI might have all already won, based on the crucial factors of maximum housing and purchase offer. But what if two or all three proposals were closer together than JPI thought? It seemed that the added information called for in Phase II—the design rationale and philosophy, and detail showing the superiority of the design itself—might be the tie breaker.

Much of the required design work rested on the studies conducted for Phase I by Esocoff's office, preservation architects Oehrlein Associates, landscape architects Lee & Liu, and others. These studies were further refined for Phase II. GSA proposal reviewers (in general, a more design-oriented group than in Phase I) could be expected to get part of JPI's message through Phase II's expanded graphic exhibits.

For example, a computer-generated perspective had been used to prepare a watercolor rendering of the project—a traditional tool that automation has made faster and more accurate. Later in the review process, a piece of this rendering, showing historic building fronts to be re-erected on Seventh Street, would be digitally "cut out" and moved to study an alternate location a few feet away. A revised drawing of the landscaped courtyard was e-mailed from Lee & Liu to Esocoff and embedded in the architectural site plan.



The E Street schematic retail level plan reveals JPI's proposed jigsaw of shops, theater, lobby, parking, and loading dock.

Once reserved for laboriously hand-drafted construction drawings, details such as brick courses, window muntins, and railings add realism to the concept sketch, thanks to CAD.

Because GSA's presentation requirements were aimed at encouraging a range of competitors and keeping costs down, they specified ink-on-paper exhibits and provided little opportunity to integrate words and pictures. Only later would the team get to make a Power Point presentation to the National Capital Planning Commission.

But though the result would be far from virtual reality, CAD gave the team key advantages of reduced time and increased control. Most important, say the architects, was the ability to refine the graphic presentations up to the last minute, both for accuracy and visual appeal. The JPI/Esocoff team's advantage was its use of Photoshop to add digital color to the black and white TIF files created for the MicroStation SE-generated black and white drawings. Using their in-house plotters, the architects were able to see hard copy drawings and immediately edit them on-screen, rather than waiting for an outside printer to deliver images that would still have to be hand-colored.

Still, these great visuals needed some explanation. The challenge remained to summarize the proposal's essential benefits in a form that GSA Phase II reviewers would read and understand.

An interview with Phil Esocoff revealed a long list of benefits and points that could be made. Some ideas could have been highlighted in a more dramatic graphic package. Others, significantly, were issues of content or character—notes that a multimedia presentation could have put in the voice of the developer or architect, but that had to be conveyed in writing.

Some points represented clear advantages. For example, by ingeniously placing duplex apartments' back bedrooms and public corridors hard against a rear alley, the design allowed living rooms and master bedrooms to face west onto a sunny, maximum-width courtyard, which in turn provided an amenity for the whole complex. The architects were later asked for computer perspectives to show how this worked.

Other points required a little ingenuity. GSA would see that a large consulting architecture firm listed on the Phase I team had been replaced, for a number of reasons, by a small firm. But Phase I had not required naming a final team, and the new firm was both arguably better qualified and also woman-owned, an advantage for the team's affirmative action credentials.

There were other benefits, as well.

- While JPI had a long and successful record of building and managing apartments, few were in inner cities. The positive story included JPI's strong motivation to make this project its downtown flagship, and the presence on the team of Gould Property Company/PMI, a veteran Washington, DC, and PADC developer.
- Because Esocoff & Associates was smaller than its Parcel 457-C competitors, we stressed that Phil Esocoff would be able to maintain constant personal involvement and close collaboration with JPI and other team members.

*more...*

- We also noted that JPI's larger, two- and three-level units and lofts would attract more stable families and professionals, while filling an unmet market segment.
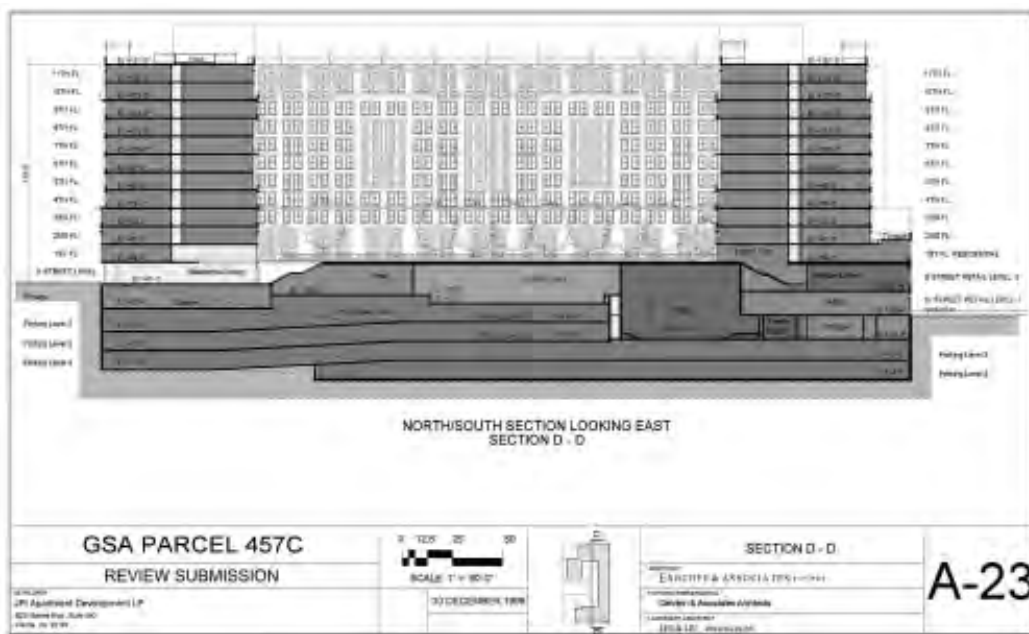
As the Phase II deadline approached, it became clear that the other teams had also obtained letters of interest from theater companies. One, from Arena Stage, would bring their large and famous regional theater to Seventh Street. JPI stood by its original theory: maximum housing meant a smaller but more practical theater, and Woolly Mammoth and its school would be neighborhood-friendly.

In keeping with its idea to structure the Parcel 457-C response like a *Design Excellence* review of architecture firms, GSA had asked for several written statements of



NORTH/SOUTH SECTION LOOKING EAST
SECTION D - D

GSA PARCEL 457C
REVIEW SUBMISSION

SECTION D - D

A-23

A slice through courtyard view reveals the scale of new construction tucked behind old buildings. The site's drop from E Street to D Street accommodates the extra height of a theater.

intent and philosophy. This created a small window for organizing our key issues in the form of an old-fashioned, written pitch—a chance we could not afford to miss.

Among the elements we helped create in response were:

- A review of the firms on the team, stressing the symbiosis of designers and developers—the developer contributing apartment design expertise, the architect adding experience in downtown development economics—plus the rationale for each specialized consultant's job.
- A statement underlining Phil Esocoff's role as the responsible lead designer. The GSA-required section on "project approach and philosophy" employed a series of third-person, active-verb paragraphs about Esocoff to create both a statement of commitment to the project and a review of its main components.
- A first-person "lead designer's statement of intent." No mere philosophical riff, it highlighted the project's benefits and features as fulfilled design goals.

The result was a concise summary of the proposal and its design strengths:

- The number, size, and variety of housing units
- The courtyard
- The creation of live/work loft apartments enlivening the street and lighting the upper floors of historic commercial buildings
- The theater and school reinforcing restaurants and street life
- A food market
- Boutiques

- The use of brick
- Windows and balconies to create a background for Victorian buildings.

Arguably, it was the basics of the financial and housing proposal, or perhaps some outside factor, like the ultimate reluctance of Arena Stage to move downtown, that swung support at GSA. Perhaps the visual materials helped reviewers penetrate the thicket of information to catch a glimpse of the architect's vision and excitement.

Just as there are now programs that will take a precise, computer-generated architectural rendering and make its lines fuzzy and sketch-like, so we may be close to software that will deconstruct masses of proposal data and inject such details as the applicant's character and personality. For example, during the proposal effort, we shamelessly noted that Esocoff and his family had lived in a city condominium apartment for more than 20 years, working this into the JPI document not once, but twice. Until software can identify and insert similar personal details, the odd duality of high tech and high spirits that comprises A/E/P proposals seems likely to endure.

Robert L. Miller, AIA, is President of Robert L. Miller Associates, a 15-year-old Washington, DC, marketing communications firm specializing in the A/E/P professions. A Yale Architecture School graduate, Miller was an executive of the public relations firm Hill and Knowlton, Inc. He can be reached at RLMADC@aol.com.

# A Virtual Private Network Case Study

## How Litton PRC Defense Systems' Approach Increased Efficiency and Reduced Costs

*By DENISE RHEA-MCKENZIE*

**F**or almost two years, Litton PRC Defense Systems organization has been using a Virtual Private Network (VPN) to plan, manage, support, and simplify the proposal development process for itself and its worldwide partners. The VPN has increased Litton PRC's ability to undertake multiple proposal efforts while enhancing productivity and cutting proposal costs in a secure environment. Could Litton PRC's VPN be a model for your company?

## Initial Development

In August 1998, the Litton PRC Defense Systems Proposal Development Center (PDC) decided to invest in implementing a more robust method of proposal development, including a virtual workplace and collaborative capabilities for our employees and teaming partners. The decision was driven by significant changes affecting the way government contractors prepare proposals for federal, state, and local agencies.

The changing dynamics of the marketplace demanded that companies responding to Requests for Proposals (RFPs) change their method of response. Because of the constant flux in proposal requirements, more geographically dispersed teams, a greater demand for oral presentations, and shorter response times to solicitations, Litton PRC Defense Systems concluded that it needed an online, Web-based proposal development capability to be fully competitive in these changing markets.

With an initial investment of less than $25,000, we activated the Defense Systems VPN in December 1998. The VPN is a distributed, collaborative, workflow-enabled application that allows us to plan, manage, support, and simplify the proposal development process over both time and space. Working with Litton PRC system engineers and network developers, the PDC Staff developed the functional requirements necessary to support its proposal efforts. The system engineers and network developers purchased the hardware and software, configured the system, and customized off-the-shelf software where necessary. They continue to support the VPN by enhancing its capabilities.

The Defense Systems PDC staff of nine includes proposal coordinators, graphic artists, desktop publishers, production staff for proposal support, and the VPN Administrator. The VPN allows each proposal team to more efficiently and effectively plan, assemble, review, store, produce, and disseminate

proposal information. By reducing the amount of time spent on non-critical tasks, our VPN permits teams to focus on proposal content and quality while maintaining configuration control and reducing costs.

Using the VPN, a geographically dispersed proposal team has a common work center where they can access all the tools and information needed to create a successful proposal. The VPN lowers costs by reducing the need for teams to meet face-to-face, enables off-site personnel to remain billable, and saves time by producing and distributing less paper.

For example, in December 1999 via the VPN, Litton PRC primed a re-compete effort based out of our Los Angeles office. We had 18 teaming partners across the United States. Delivery of the proposal required six volumes, including each partner's GSA Schedule in electronic format. The technical volume had five specific sample tasks that all partners had to address in their areas of expertise.

## *Using the VPN, we completed the re-compete proposal for less than half the original proposal's cost.*

The VPN collected more than 500 documents, including GSA Schedules, over a 45-day proposal development period, allowing the proposal management team located in Los Angeles to have information available immediately for evaluation and inclusion in the proposal. The Bid and Proposal cost for the initial proposal was more than $500,000 in 1994. Using the VPN, we completed the re-compete proposal for less than half that amount.

We attribute most VPN costs savings to reduced travel requirements and direct billing by employees contributing to a proposal effort. Subject matter experts remain on-site, yet they can provide proposal support and thereby increase our ability to respond from the whole organization.

## Access and Control

The Defense Systems VPN allows access to anyone in the world with an Internet Service Provider and approved privileges to the system. The VPN can run on any platform, and is designed to support multiple proposals simultaneously.

Since it became operational, the VPN has handled more than 75 proposal efforts (as many as 15 simultaneously), with proposal teams in Virginia, Texas, Ohio, Massachusetts, Florida, California, Colorado, Alabama, Washington, Maryland, Nebraska, Hawaii, Missouri, and Mississippi. Additionally, the VPN has supported Litton PRC business development efforts in Europe and provided proposal development support to several large corporations, including IBM and Scientific Research Corporation.

We have provided access to more than 1,000 users, including personnel from Litton PRC and our subcontractors. During the life of a proposal, the VPN is accessed up to ten times an hour on a large effort.

The Litton PRC Defense Systems PDC staff, working with the Proposal Management Team, creates and maintains access control, user privileges, point-of-contact lists, and RFP-related documents. Each proposal is set up with an independent site of folders designed to match the proposal outline approved by the Proposal Manager. Users have access to only the folders on the VPN where they are contributing proposal materials, or to those that contain reference information directly related to the proposal.

For example, only contracts personnel have access to the cost proposal files on the VPN for a given proposal. Technical writers and other contributors are locked out of the cost information, unless PDC staff is directed to provide that access. This access control allows the proposal team to focus on areas of expertise and provides the PDC staff with a method of document configuration management. The system keeps a log that tracks each time users log onto the VPN and notes the specific files they access.

## *Data encryption was necessary to provide the same confidentiality proposals receive when teams work in-house.*

Because proposal contents are proprietary, we determined that data encryption was necessary to provide the same confidentiality proposals receive when teams work in-house. To ensure the protection of proprietary information, the Litton PRC Defense Systems VPN has a built-in encryption capability for documents *going to* and *coming from* the system. Documents

uploaded to the VPN from sub-contractors, staff, and consultants are encrypted while traveling over the Internet.

Before the VPN, proposal documents were moved over the Internet as plain text, either through e-mail communication or Web sites. This meant that experienced hackers could access proprietary data because users sent information directly to e-mail addresses or downloaded to a hard drive. Now, however, when users access the VPN to upload or download a proposal document, the VPN encrypts all data on the system while it is in transit, thus protecting the data from unauthorized access.

After implementation, the VPN servers were backed up every night. As the PDC staff gained experience using the VPN, they determined more frequent backups were necessary to ensure that no information was lost in case of power failure or other problems. Now, nightly backups of all information on the VPN servers continue, but selected files are backed up every two hours. Files that are selected for frequent backup include active proposal files, RFP files, and ever-changing proposal management files.

The assigned Proposal Coordinator manages all documents that are uploaded to the proposal site for a particular solicitation. The upload capability allows the Proposal Manager and Proposal Coordinator to monitor proposal development in real time. Documents uploaded to the VPN are placed in a holding cell that is invisible to users and trigger an automated e-mail notification to the assigned Proposal Coordinator. The e-mail identifies the user, document name, date, and time the document was uploaded.

Uploaded documents are protected from overwriting because each has a unique name, date, and time stamp. This ensures that documents with the same name (i.e., template files sent to teammates for completion) are available for review and comment by the proposal team, even if more than one contributor reviewed and updated the document. As soon as the Proposal Coordinator is notified of an upload, he or she moves the document to the appropriate folder. The Litton PRC Defense Systems PDC opted for this manual process to ensure configuration control over proposal documents and to guarantee that all documents are placed where users can find them.

Our VPN development staff is currently working on a set of collaborative tools to enhance the system's capabilities. These tools include a NetMeeting-type capability that allows multiple users to share documents for editing or development. Ensuring that all data is secure, while maintaining a satisfactory level of performance, is a significant challenge. While NetMeeting is not a new collaborative tool, providing access to outside resources, such as subcontractors, teaming partners, and consultants, has not been an option. Our collaborative tools allow simultaneous real-time development of documents in a secure environment.

## Proposal Review Enhancements

The VPN allows the Litton PRC Defense Systems PDC to provide enhanced services to support proposal development across a worldwide organization. By allowing proposal contributors to work from their home sites, the VPN improves a proposal team's ability to concentrate on content and respond to requirements. Subject matter experts around the world can review the proposal as it develops by accessing the VPN. Over the past several months, a number of review teams (Blue, Pink, and Red) have been successfully conducted via the VPN. This has allowed Litton PRC proposals to have a greater spectrum of reviewers, and has increased participation from our teaming partners.

Reviewers do not have to travel to our facility, lose a day in the review process, and then remain available on-site to provide proposal direction. Our reviewers log onto the VPN, access the proposal materials, conduct their reviews, and place comments or suggestions on an electronic review form. Only the comments form is returned to the VPN, allowing the PDC staff to collate the remarks electronically and disseminate them to the team, and work more effectively with the review team's guidance.

*more...*

A recent teaming partner sent the following comments about her experience using the VPN.

"Red Team review was even easier because we could download the information, perform our review, and upload our comments. This saved on travel time for the subs.

I feel the VPN is a great product and made the proposal process run very smoothly. It was actually the "smoothest" proposal experience I have had working with a prime, and I would recommend it for all large proposal efforts with a variety of subs from various geographical locations."

Even though we have used the VPN successfully on several proposals for review teams, we maintain open communication with all reviewers, team members, and proposal staff. Face-to-face sessions are still necessary for many facets of proposal development. However, we have discovered that we have access to additional subject matter experts using the VPN as part of our review process.

While we use the VPN for proposal development, we do not substitute the VPN for all communication. We still strongly urge an in-person kick-off meeting, as well as daily or frequent teleconferences for proposal status exchanges.

## Production and Reuse

The VPN saves proposal production time by allowing the PDC staff to develop templates and style guides for each proposal. Now, proposal team members work from formatted documents and do not have to be concerned about ensuring that the proposal has the same look and feel.

Using the VPN, proposal team members can focus on their strengths without having to wear several hats. Writers can write, word processors can word process, and graphic artists can develop graphics. Subject matter experts work within their realm of expertise and leave the document development, graphics, production, and delivery requirements to PDC staff.

The Defense Systems VPN allows greater reuse of materials developed from other proposal efforts. It hosts a secure repository site for proprietary past submissions, boilerplate materials, and current contract information. All versions of proposal documents developed on the VPN are written to a CD upon proposal completion, and are available through the PDC.

## Benefits and Lessons Learned

The Defense Systems VPN has enhanced proposal development support to both Litton PRC employees and our proposal teaming partners. It gives users a centralized, single point-of-contact for proposal development. Our VPN is secure and available 24 hours a day, 7 days a week; it is platform independent; and it can be accessed from anywhere in the world. It has increased our ability to support multiple efforts simultaneously, and to provide enhanced tools and capabilities to our proposal efforts. Through it, we have been able to train our proposal teams in the Litton PRC Proposal Development Process, and have increased our ability to support them with continuous proposal services, including graphics development, configuration management, and final document review and production.

Of course, we are continuously looking to improve and enhance the features of the VPN. With each proposal effort, we have discovered new and more efficient methods of proposal development support.

The VPN is a valuable tool if you have geographically dispersed employees, teaming partners, and other personnel who need to collaborate on proposals or on other business development efforts. It can begin very basically, and be enhanced to support several different types of services, including document sharing, teaming or sub accessibility, and collaborative workspace.

*Our VPN … has increased our ability to support multiple efforts simultaneously and provide enhanced tools and capabilities to our proposal efforts.*

Any company that wants to increase accessibility to subject matter experts, reduce proposal development costs, and create a secure environment for proposal development should consider the benefits of a Virtual Private Network.

During her 15+ years in proposal development and marketing support, Denise Rhea-McKenzie has worked at several large corporations in the Northern Virginia area. She is currently Manager of Litton PRC Defense Systems Proposal Development Center (PDC) in McLean, Virginia. She serves as Proposal Manager on large proposal efforts while managing the PDC staff. She developed the Virtual Private Network used throughout Litton PRC Defense Systems sector to support both local and geographically dispersed proposal teams. In 1999, Ms. Rhea-McKenzie was awarded Litton PRC's President's Excellence in Performance Award for quality. Employees are nominated for this award by co-workers. She can be reached at McKenzie_Denise@prc.com.

# The Elements of Technical Writing

*Reviewed by JENNIFER PARKS*

**THE ELEMENTS OF
TECHNICAL WRITING**
**Gary Blake and
Robert W. Bly**
New York, NY: MacMillan
General Reference: 1993.
165 pp. • $9.95
0-02-013085-6

Gary Blake and Robert Bly, both authorities in the field of business and technical writing, have provided a valuable tool in *The Elements of Technical Writing*. As the cover states, this book is the essential guide to writing clear, concise proposals, reports, manuals, letters, memos, and other documents in every technical field. Not only have Blake and Bly included all the necessary information concerning punctuation, grammar, and tone, they have organized the book in an easy- to-use, precise format.

The first chapter begins with the following quote and serves as a good introduction to the material in the first chapter.

*"Newspaper reporters and technical writers are trained to reveal almost nothing about themselves in their writing. This makes them freaks in the world of writers, since almost all of the other ink-stained wretches in that world reveal a lot about themselves to the reader."*

—Kurt Vonnegut, Jr.

The first chapter, "Fundamentals of Effective Technical Writing," identifies the ten principles that make technical writing good technical writing. These principles include:

1. Technical Accuracy
3. Usefulness
4. Conciseness
5. Completeness
6. Clearness
7. Consistency
8. Correct Spelling, Punctuation, and Grammar
9. A Targeted Audience
10. Clear Organization
11. Interest.

These principles are easily overlooked in business writing. Blake and Bly urge us to remember that our audience is made up of humans, not just technical personnel.

Each chapter in this guide is broken out into sections that clearly outline the information that follows. The format is legible, succinct, and lends itself to easy reference. There are chapters regarding the use of equations and numerals, grammar and punctuation, and principles of communication, as well as a chapter regarding commonly misused words and phrases.

Chapters six through nine break away from the rules of the English language and get down to the specifics of writing proposals, technical articles and reports, letters and memos, and manuals.

Chapter six, "Proposals and Specifications," details the components necessary in a formal proposal. The authors set forth their ten principles of proposal writing, which revolve around the focal point of the client. They are:

1. Learn everything you can about your prospective client and the people who will evaluate your proposal.
3. Sell your ideas by fitting them into your client's needs.
4. Don't just solve the technical problems; empathize with the customer's critical needs.
5. Recognize all critical factors that evaluators will use in assessing the proposal.
6. Make sure your proposal addresses every element mentioned in the RFP.
7. Use appropriate graphics to highlight your ideas and make them easy to visualize.
8. Tailor each proposal to the needs of the specific client.
9. Anticipate and defuse objections.
10. Avoid hedging and subtlety in proposals.
11. Make a list of where key resources are located if you do not have a proposal library.

Blake and Bly urge us to learn everything we can about our clients and then tailor our proposals to their needs. For example, the following sentence does not tell the client what we can do for them:

*"We have extensive experience in airlines operations and forecasting and evaluating traffic flows."*

A better way to make the point is:

*"Our extensive experience in airlines operations and forecasting and evaluating traffic flows gives us insight in to the logistics of your business and will help you respond faster."*

The second sentence focuses on what your company can do for the potential client and tells the reader how you will benefit them rather than simply stating your qualifications. The more tailored your proposal is to the reader, the more impact it will have.

Blake and Bly have written a useable, handy, and inexpensive style guide that is tailored to their audience: people who write for business. While the majority of style guides and writer's reference books tend to be very dry, I found Blake and Bly's book to be highly readable. They have practiced what they preach— their writing is clear, and more importantly, interesting. *The Elements of Technical Writing* is written specifically for technical writers, but it is also a very valuable reference guide for other writers. This concise style guide is now an indispensable part of my library.

# How to Write a Statement of Work

*Reviewed by LISA M. MADDRY*
*PROPOSAL COORDINATOR, STRATEGIC OPERATIONS—BUSINESS DEVELOPMENT*
*MANTECH SYSTEMS ENGINEERING CORPORATION*

How to Write a Statement of Work is a very detailed and informative manual. It is divided into six chapters and one appendix, and includes a Table of Contents detailed enough to warrant the absence of an index. The book's target audience is government personnel who write Statements of Work (SOW) for contracts or solicitations. *How to Write a Statement of Work* also applies to government contractors who must read, interpret, and respond to SOWs, and to contractors who write SOWs for commercial contracts. The target audience must be kept in mind, because *How to Write a Statement of Work* is definitely NOT appropriate for individuals outside of the government contracting and procurement fields. If not already experienced in writing or reading SOWs, the reader will be lost almost immediately.

Cole has written a very informative and concise manual, and kept his target audience in mind every step of the way. He indicates in the *Preface* that the emphasis of the book is to provide "practical, detailed guidance on writing and preparing SOWs." He accomplishes this and more. Cole also includes a short bibliography of other sources in the *Preface,* and these sources provide further guidance in developing SOWs and Performance-Based Service Contracts (PBSCs).

The first two chapters of *How to Write a Statement of Work* are the most important. Chapter One, an overview of the SOW, stresses the importance of a clear and concise document, and how this affects future communications between the government agency and interested contractors. This is the basis for the entire book and is its strongest point. The importance of the SOW to the other parts of the solicitation or contract is also highlighted in this chapter.

Chapter Two discusses the SOW development planning and preparation phase. It emphasizes the need to visualize the entire project from beginning to end, ensuring that all aspects of work are covered within the SOW. This includes choosing the type of contract or SOW to be used, and distinguishing between level-of-effort and completion SOWs, personal versus non-personal services, sole source SOWs, and follow-on efforts and options. Cole details the problems that will arise when the wrong choices are indicated in a SOW. These are the primary building blocks for fully understanding and writing a successful SOW, and Cole provides exceptional information and detail to ensure that the reader understands them.

There is very little about this book that can be criticized. One of the few exceptions is Chapter Two, *Planning and Preparation*, which covers a great deal of information on the development of the SOW. More examples on interrelating planning and preparation, and the many aspects that fall under each of these categories would be helpful.

Overall, Cole gives very effective, solid, insightful, and abundant examples. In Chapter Three, for instance, he illustrates the process of writing a Performance Work Statement (PWS) using a fictitious Agency's decision to contract out one of the functions of its Transportation Department. He provides a figure to show where this function fits into the overall department structure, and explains each part of the PWS using this same example to strengthen the reader's understanding. This consistent use of examples is evident throughout the book. Cole completes the learning process by walking the reader through a sample SOW and showing how to correct it (Appendix A). He proves throughout that he is a consummate instructor, leaving no issue untouched or unexplained.

Peter S. Cole has more than 34 years of experience in acquisition and contract management. After retiring from the Navy in 1979, he started developing textbooks and offering training programs to government and commercial clients. Based on his extensive experience, Cole has become a leader in consulting services. Cole has written 15 manuals and handbooks for government agencies, including the Department of Treasury, the Department of Interior, and the Central Intelligence Agency.

I recommend *How to Write a Statement of Work* very highly. Although SOWs are not an easy topic to understand, this book discusses them in a manner both informative and, in its own way, very enjoyable. It should be required reading for anyone in the government contracting and procurement fields. Despite the steep price tag, its value far outweighs the publisher's list price, and the book is much better than similar, more inexpensive examples. I have found *How to Write a Statement of Work* to be an invaluable resource. Its wealth of information provides contractors with a better understanding of the government's SOW goals, and with the legal ramifications that affect both sides in government contracting.

This book will be an asset to anyone preparing SOWs for either government agencies or for commercial purposes. *How to Write a Statement of Work* presents SOWs clearly and concisely. I believe it will become a valued, timeless resource for your Library.

# Web Writing & Web Trends Affecting Proposal Management

**By R. DENNIS GREEN AND CARL DICKSON**

## USING THE WRITE BRAIN

Writing for the Web *is* different than writing for traditional print media. But, as *Fast Company's* Katherine Mieszkowski pointed out in a recent issue of that magazine, the Web is not just about consuming what other people have created. It is also about sharing what you know with co-workers, partners, customers, and the rest of the world. To that end, the Web itself provides us with some of the best sources of instruction and insight about Web writing, and much of it applies to proposal management practitioners working in this domain. We preview a few of these write-brained sites for you here.

• **Writing for the Web.** (www.useit.com/papers/webwriting/) In addition to understanding the importance of Web design and its unique and amorphous technologies, this site understands that effective online communication still includes writing. Sponsored by useit.com, the site is an excellent place to begin your education about how authors should write Web pages.

One insight it offers is the finding that few people (only 16 percent) read Web pages word by word; the rest of us scan, picking out individual words and sentences. So writers have to make their Web writing scannable by highlighting keywords, using meaningful sub-headings (not clever ones), putting information into bulleted lists, limiting themselves to one idea per paragraph, and starting with the conclusion (called the inverted pyramid style).

Another important insight found here is that: "Users detested 'marketese,' the promotional writing style with boastful subjective claims ('hottest ever') that currently is prevalent on the Web. Web users are busy; they want to get the straight facts. Also, credibility suffers when users clearly see that the site exaggerates."

To convey credibility, the web site recommends the use of high-quality graphics, good writing, and the use of outbound hypertext links. "Links to other sites show that the authors have done their homework and are not afraid to let readers visit other sites." It was just such a link that led us to the following:

• **Contentious**. A monthly 'Web-zine' (www.contentious.com) for online writers and editors. You will love its focus, features and awards related to "cutting the fluff." And its own links, such as this one to a reference tool:

• **The Webmaster's Reference Library** (http://webreference.com/). The day we visited this dynamic site, it had articles on open publishing, graphics, photo treatments, and many more.

The fourth writing resource we want to share is a wonderfully sassy site discovered, again, with Katharine Mieszkowski's help.

• **The Cluetrain Manifesto** (www.cluetrain.com). Cluetrain serves up a reality check on the stale, boring, bombastic, arrogant, and non-human tone of many corporate communications. It objects to the tendency of many corporations to communicate "in the soothing, humorless monotone of the mission statement, marketing brochure, and your-call-is-important-to-us busy signal." No wonder, say authors Christopher Locke, Rick Levine, Doc Searls, and David Weinberger, that networked markets have no respect for such companies or the tone. Cluetrain encourages us to speak in a human voice instead of cranking out sterile happytalk that insults the customer's intelligence. Cluetrain's style is irreverent and in your face, but its message is a sober one. The site features articles, commentary, clues (recommendations), a book excerpt, and 95 Theses, á la Martin Luther, including this sampling, which may strike some people as charmingly utopian:

• Markets are conversations.

• Conversations among human beings sound human. They are conducted in a human voice.

• Whether delivering information, opinions, perspectives, dissenting arguments, or humorous asides, the human voice is typically open, natural, uncontrived.

• People recognize each other from the sound of their voices.

• The Internet is enabling conversations among human beings that were simply not possible in an earlier era of mass media.

• Hyperlinks subvert hierarchy.

*more...*

- People in networked markets have figured out that they get far better information and support from one another than from vendors.
- There are no secrets. The networked market knows more than companies do about their own products. And whether the news is good or bad, the market tells everyone.

- In just a few more years, the current homogenized "voice" of business—the sound of mission statements and brochures—will seem as contrived and artificial as the language of the 18th century French court.
- Already, companies that speak in the language of the pitch, the dog-and-pony show, are no longer speaking to anyone.
- Bombastic boasts—We are positioned to become the preeminent provider of XYZ—do not constitute a position.
- Companies need to come down from their Ivory Towers and talk to the people with whom they hope to create relationships.
- By speaking in language that is distant, uninviting, and arrogant, companies build walls to keep markets at bay.
- Intranets naturally tend to route around boredom. The best are built bottom-up by engaged individuals cooperating to construct something far more valuable: an intranetworked corporate conversation.
- Today, the org chart is hyperlinked, not hierarchical. Respect for hands-on knowledge wins over respect for abstract authority.
- If you want us to talk to you, tell us something. Make it something interesting for a change.

## WEB TECHNOLOGY — TRENDS TO WATCH

We finish this issue with the insights, predictions, and prognostications of our resident proposal technologist, Carl Dickson, who peers into the future and ponders the world of To Be or Not To Be.

# Lead, follow, or get out of the way

The billion dollar music industry is being shaken up by a simple little file format called MP3. As soon as bandwidth permits, the same will happen to the TV/movie industries. Amazon.com totally upset the retail book selling trade and may have ended the trend towards retail superstores. Manufacturing companies in all industries are integrating their supplier pipelines via Web-based ordering systems, and saving billions of dollars in the process. This is typified by General Motors and Ford which are bringing their parts suppliers online, streamlining the ordering process, eliminating paper, eliminating paper handlers, and lowering parts inventories. Single year Returns on Investment (ROIs) are being reported.

Entire industries that took decades to establish are being changed from top to bottom in months. Some of these moves are resulting in the middlemen being squeezed. The Web enables manufacturers to deal directly with customers and not go through dealers. Whether the middlemen will remain viable will depend on their ability to provide value-added services.

The point is that billion dollar industries are being rebuilt overnight. Nobody is safe. You cannot hide from the technology. If you are not paying attention to its impact on you, it may pass right by you. And do not think the federal proposal market niche is safe. The federal government threw itself at the Web faster than industry did. Changes that people thought would take decades happened in just a couple of years. And the pace of change is increasing.

You do not have to run. You do not have to hide. You do not even have to worry. If you understand the trends driving the change, you can be ready. And you do not have to become a technologist in the process. Ultimately all this technology has to find a place in the physical world to make business more efficient and people's lives more productive. What technology will not do is to figure out what the message should be, coordinate efforts and structure processes to deliver it, and to provide the initiative to get things done.

## *Trends to watch*

**Television, telephone, and Internet converge.** As television goes digital, and telephone companies route their data using the same communications protocols that drive the Internet, look for them all to converge. Television, telephone, and Internet will all come over the same cable, from the same provider, and the technologies will be able to interact with each other. MTV and the Discovery channel already provide interaction between their programming and their Web sites. The Bells and cable companies are merging in anticipation. Call centers that enable telephone operators to interact with Web site users have already been deployed. Look for the technologies to blend so seamlessly that they become essentially one thing. The Web conquers all.

**Computers become pervasive.** PC makers can almost fit an entire PC on a single chip. PCs have become so cheap that companies are experimenting with giving them away in order to get other business. Look for computers to be built into everything, from kitchen appliances to cars, and for everything to be connected to the Internet. The term they use is "pervasive computing." IBM has gone so far as to say that the PC is dead —- that

instead of being separate, stand alone devices, computing will be everywhere and transparent.

**Bandwidth grows but the need grows faster.** DSL and cable connections are quickly making modems obsolete, with installations going far faster than anyone predicted. However, they are not available everywhere, and by the time they are available to the most remote locations, we will probably be on to the next level of faster service. Remember ISDN? It took 15 years to develop. In just a couple of years, DSL killed ISDN before it even was fully deployed. Bandwidth will be the biggest hold up for convergence and pervasive computing.

**Wireless connections become available.** The wireless connections available today are slow. What cellular providers are advertising today as Internet-ready phones, will not impress anybody expecting a desktop-like experience. However, the difficulty of wiring millions of homes and businesses in combination with the lack of portability of a wired connection create a strong demand for wireless solutions.

**Access your data from anywhere.** A big trend today is towards Application Service Providers (ASPs), which host Web-based applications and provide remotely accessible data repositories. Whether these are outsourced to ASPs or built internally, look for organizations to be able to remotely interact with remote offices, teaming partners, and customers so seamlessly that it won't matter where you're physically located.

**More people become self-employed.** If it does not matter where you are physically located, look for more people to work from home. Companies looking to lower costs and people who want convenience will find ways to solve the problems associated with telecommuting. And if you are working from home, it is easier to support more than one company. As the rapid pace of technology forces businesses to be able to change faster and faster, having a flexible workforce becomes more attractive. Full-time dedicated employees will always be critical to achieving an organization's mission, but expect continuing changes in the composition of the workforce and employer/employee relations.

**Security issues and privacy issues never go away**. The Internet can be made far more secure than it is today. One problem is that the U.S. Government has been impeding the widespread use of strong encryption. Other problems are related to weaknesses in communication protocols and applications were not designed with security in mind and/or have numerous bugs. These are solvable problems, but it takes time to get everyone on the same page. But even if you had perfect software, people and procedures are not perfect. Security issues will always be with us. Look for more secure protocols and more use of encryption. Also look for changes in the legal code, such as supporting digital signatures and criminalizing electronic identity fraud.

**Data becomes more interchangeable.** New formats will enable data to be passed from one application to another seamlessly, by separating the data from the codes that determine how it is formatted or handled by any particular application. Each application will be able to display and edit the data according to its capabilities. To the end user, the appearance will be seamless — as if there was only one file format used by everything. The biggest problem in implementing this concept is getting different software vendors to cooperate. XML is an example of this technology. It is used by Microsoft® Office 2000 to enable documents to be passed between office applications and the Web. However, fighting between developers with competing interests is impeding deployment of XML.

**Technology continues to drive acquisition reform.** Incredible efficiencies become possible when you treat proposal data as an annotation to the RFP with the proposal being just one view of the data. When you combine this with telecommunications convergence and distributed data access, you get an environment where the document better reflects how the information is developed and used. Expect Request for Proposal publishers to be early adopters of XML and data interchange technologies.

**Operating systems and software give way to applications.** On the Web, it does not matter what kind of computer you have, or what kind of computer is acting as the server. The operating systems are less important because the interface is standardized. There are more important questions. Does it do what you need, is it efficient and easy to use, and is it compatible with anybody else you need to interact with? When your home is on the Internet instead of on your desktop, applications become far more important than the operating system or software you have installed.

## *How long will it take?*

Because of where I live, I can order an Internet connection more than four times faster than a T-1 and more than 100 times faster than a 58kbps modem. The problem is not the technology. The problem is deploying it in the physical, non-virtual world. Inexpensive fast connections are only available in a small percentage of locations. The only thing stopping this technology from being available everywhere is that equipment and cabling has to be installed in literally every home and office, and that is what takes time. It will be years before it is fully deployed. And inevitably, it will be obsolete by the time it gets there, with even faster connections being possible. The physical deployment may take so long that high-speed wireless may get here first.

The same goes for other technologies. Cars have been built

*more...*

that drive themselves. They require special sensors to be installed in the roads in order to work. How long will it take to rebuild every road in existence? How long does it take to add a single lane to most congested road near where you live?

Look for Web technology to arrive faster than you believe is possible and for the deployment to take longer than you believe it should. Technologies that require physical deployment will roll-out at different speeds in different regions. Just remember that it does not take full deployment for the impact to be felt.

## *Key Technologies*

Just in case you looked away for a moment, you might have missed one or more of these new, evolving technologies. All affect your life and business. Ignore them at your own risk.

**DSL and Cable Modems**. Fast Internet connections. A phone-line modem provides 56 kbps. Depending on the provider, DSL can provide more than 6,000 kbps. Cable modems can be even faster. Find out if they are available in your neighborhood, and if so, place your order and throw that clunky old modem away!

**RealSlideshow Plus.** Software produced by Real Networks. It enables you to easily overlay audio, video, and animation over a slide show for posting on the Web. If you want a glimpse at what a virtual oral presentation could be like, point a browser at www.realnetworks.com/products/slideshowplus*.*

**Digital Camcorders.** First came digital cameras, which made it easy to put photos on the Web. Now there are digital camcorders that shoot video in formats that you can put on the Web.

**Office 2000.** The latest version of Microsoft Office incorporates XML, and if you have a Microsoft Exchange e-mail server you can build a virtual collaboration platform. You may need a network engineer and a Visual Basic programmer to make it all work, but you can get a glimpse of Micro$oft's vision of the future.

**XML.** It is an important data interchange technology. You don't need to know how to code it, but if you want to know how data will be handled in the future it is worth studying.

**DHTML.** The latest versions of HTML enable Web pages to be built with windowed interfaces like you have on your desktop. Again, you do not have to know how to code it, but it might be worth checking out some demos to see where Web-based interfaces are heading.

**Palm Devices & WinCE.** Palm-sized computers have become fashionable for the tech-exec to carry. You may not need or want one, but they are a sign of the "pervasive computing" that is to come. Imagine how much more useful they would be with a wireless Web connection to a Web-based virtual proposal center.

**Diamond RIO.** A small, portable device similar to a Sony Walkman, only you can download free music off of the Web into

one. It is another sign of pervasive computing and is causing the entire recording industry to sit up and take notice.

**TIVO.** A VCR with a computer and hard disk instead of tapes. It can store hours of video internally. You can "pause" a live broadcast and it will immediately store what you would otherwise miss and will let you pick up where you left off. It can even learn the programs you watch regularly and record them automatically just in case you miss an episode. They are on sale now.

**Recordable DVD**. DVD will eventually replace VHS tapes. But it will really take off when you can write to them, providing a removable media to store video and massive quantities of data.

**Customer Relationship Management (CRM) software.** The retail and manufacturing industries are automating their sales forces, and using CRM to track customer inquiries through all sources (Web, phone, e-mail, in-person, etc.) through the pipeline. The idea is to automatically provide the customer with information and assistance that is tailored to the (potential) client's interests. As this software grows in capability, look for it to move beyond product sales and into the proposal territory.

**Voice Over IP (VOIP).** These products use the same protocol that is used on the Internet to handle telephone/voice data. There are already products available that link offices via VOIP without incurring long distance charges. VOIP PBX units are available for corporate telephone systems. Some companies are already using it to avoid long distance charges. The Bells are working furiously in this area to make the voice quality comparable to regular telephones and to eliminate the need for separate voice/data networks.

**Application Service Providers (ASPs).** ASPs host Web-based applications. Rather than build internal infrastructure, you can outsource to the ASP and make use of software as needed. There is so much interest in this area that Microsoft is experimenting with providing Microsoft Office as a "rented application" over the Web as an alternative to selling discs. Even if you are not inclined to outsource your applications or data storage, the technology being developed for Web-based applications will revolutionize how you use computers.

We are part of a society that is anything but stagnant. Web technology is dramatically changing the way government agencies, companies, and proposal professionals do business together.

R. Dennis Green is a management consultant, writer, and managing editor of Proposal Management. He can be reached at RdenGreen@aol.com.

Carl Dickson is a Vice President for OPTYM Professional Services, Inc. He is identified on Optym's Web site as "Head geek, chief webmaster, and proposal technologist" as well as the solver of proposal software problems and developer of proposal tools such as TeamSuite™." He can be reached at cdickson@optym.com.

# EDITORIAL STATEMENT AND GUIDELINES FOR AUTHORS

*Proposal Management,* the Professional Journal of the Association of Proposal Management Professionals (APMP), publishes articles and original innovative studies about proposal development and proposal management.

## Editorial Statement

Proposal Management invites authors to submit their best research for peer review. Manuscripts may be of practical or scholarly importance to APMP's audience of proposal development, acquisition, procurement, business development, sales, and program management professionals.

## Content

Proposal Management publishes the following types of peer-reviewed articles:
- Results of original research on proposal-related topics.
- Original contributions to proposal-related theory.
- Case studies of solutions to proposal-related problems.
- Tutorials on proposal-related processes or procedures that respond to new laws, standards, requirements, techniques, or technologies.
- Reviews of proposal-related research, products, books, bibliographies, and bibliographic essays.
- Views and commentary.

The journal promotes APMP and its goals through the timely publication of articles, reviews, and references. The journal is a medium for promoting constructive, intelligent discussion and debate about proposal development and management. Because the primary audience of the APMP professional journal is informed practitioners in the private, government, and non-profit sectors, manuscripts reporting the results of research or proposing theories about topics should include descriptions of or suggestions for practical applications.

## Submissions

The following are requirements for articles/manuscripts submitted:
- Not more than 30 pages (15 pages single-spaced) including exhibits, printed on 8 1/2" by 11" paper.
- 12-point font and at least one-inch margins on all four sides.
- Double-spaced throughout, including references.
- Submit both a hard copy and an electronic file of your article on a 3 1/2-inch disk (high density format). Microsoft Word or Corel WordPerfect are preferred electronic formats; a Rich Text Format (RTF) or ASCII file format is also acceptable.
- In addition to the text file, submit one electronic file for each figure in TIF or JPG format. Screenshots are preferred to be captured and output should be 6 inches (width) by 4.5 inches (height) for full screens. Because illustrations will be reproduced in black and white, they are best captured in grayscale rather than in color.
- Submit four copies of the article to Proposal Management's Managing Editor or the Chair of the Editorial Advisory Board. (General inquiries can be made to the APMP Executive Director at 909-659-0789.)

Note: We also solicit guest commentators for contributions to Trends and Views.

## Manuscript Preparation

The following guidelines should be followed in preparing manuscripts for submission:
- Provide the manuscript's title and name(s) of author(s) at the beginning of the paper and text file.
- Provide an informative abstract labeled "Summary" of approximately 150 words.
- Use up to four levels of heading.
- Place all exhibits in the text with a descriptive caption.
- Bibliographic references should be indicated in the text by the last name and year of publication in parenthesis (i.e., (Jones, 1978)). At the end of the text, provide a complete list of works cited (labeled "References") using full names of the authors.
- All citations in References should conform to standard academic practices. Conformance with The Chicago Manual of Style, 14th Edition, pp. 640-699, is preferred.
- At the end of the text file, include a biographical sketch labeled "Author(s)" of no more than 100 words for each author. Describe author's professional experience, education, institutional affiliation, professional organizations, and other relevant information. Include an e-mail address and a telephone number where you can be reached during business hours.

## Style

Proposal Management articles must be well-organized and readable. Write clearly and avoid jargon and acronyms. Use the active voice. Avoid language that might be construed as sexist, and write with the journal's nation-wide audience in mind.

Spelling and usage should conform to The American Heritage Dictionary, 3rd edition. Punctuation, format, and citation style should conform to The Chicago Manual of Style, 14th edition.

## Review

Submissions, if they conform to the above specifications, will be reviewed by the journal's Editorial Advisory Board in accordance with the Board's internal procedures for review. In general, articles will be evaluated in terms of the relevance of the topic; its potential contribution to our understanding of proposal development or management; and its readability. When appropriate, the Board may provide the author with constructive suggestions on how the article might be improved to increase its accuracy, quality, or impact.

## Conflict of Interest

While journal staff and contributors to Proposal Management may benefit from the professional recognition they gain through this affiliation, they shall not use the journal as a forum to give inappropriate or unfair advantage to themselves or others. Journal staff members and contributors are permitted to purchase advertising in Proposal Management at standard, published rates.

Any staff members or contributors who believe themselves to have a potential conflict of interest must immediately notify the Managing Editor of the journal, who will decide whether a potential or real conflict of interest exists. Based on the Managing Editor's decision, journal staff or contributors may be asked not to involve themselves on the subject of the conflict of interest.

## Objectivity

The information and viewpoints expressed by authors or staff members in the journal should be based on objective, balanced research and analysis to the extent afforded by available resources. The views expressed by contributors and staff do not necessarily represent the views of APMP.

## Reprints & Web Posting

Permission to make digital or hard copy reproductions of published material for personal, classroom or other not-for-profit purpose is granted without fee provided that: (a) requesting individual or entity first requests and receives written permission from an authorized APMP representative in advance; (b) copies or postings not be made or distributed for profit or direct commercial advantage; (c) the publisher (APMP), title of publication, and publication date appear on the reprint or posting; (d) excerpts, if used, may not distort the integrity of the original article or column from which they are taken; (e) any web site displaying the article include an electronic link to the APMP web page, http://www.apmp.org; and (f) all reprints or postings must be appended with an approved "APMP Identification Statement" advising readers that the article or excerpt is reprinted or posted with permission and that material is protected by copyright.

To republish, copy, post on servers, or redistribute to lists outside of these guidelines may be permitted provided that prior specific permission is granted and/or a per-copy or negotiated fee is paid to the APMP. Address such requests or requests for additional information to the Executive Director, APMP, P.O. Box 1172, Idyllwild, CA 92549-1172. Reprints are also available through the publisher at modest cost; please contact our office at 909-659-0789.

## Copyright

The Association of Proposal Management Professionals holds the copyright to all material published in Proposal Management. When previously copyrighted materials are republished or excerpted in the journal, they are so marked with proper attribution. Republication, reprint and web posting rights may be granted, in accordance with above statement and policy. If your manuscript has been previously published or presented, or if you are submitting it concurrently to other publications, you must inform the APMP when you submit the manuscript.

CHANGES OF ADDRESS AND CORRESPONDENCE: Members of APMP should send notification of change of address to the APMP office. Any change of address or correspondence relating to non-member subscriptions should also be sent to the APMP office. Subscription for APMP members is included in the annual membership dues. For non-members, a subscription is $30 per year. Individual issues may be purchased for $15 each from the APMP office while supplies last. *Proposal Management* is published bi-annually by the Association of Proposal Management Professionals, a non-profit organization, P.O. Box 1172, Idyllwild, California, 92549-1172. All rights reserved, but reproduction rights are granted upon written request. Copyright ©2000 by the Association of Proposal Management Professionals. Periodicals postage paid at Idyllwild, CA. POSTMASTER: Send address changes to Proposal Management, P.O. Box 1172, Idyllwild, California 92549-1172. Printed in the USA. Claims for missing copies must be made within three months of publication date. Missing copies will be supplied where reserve stock permits. Send claim to APMP, P.O. Box 1172, Idyllwild, California 92549-1172.

ADVERTISING RATES AND GUIDELINES
(Effective through September 15, 2000).
Rates Per Issue - Premium Placement Locations (when available):  Back Cover $1800 (4 Color);  Inside Front or Back Cover $1500 (4 Color).  Other Placement Locations:  Full Page $1200 (B&W);  Half Page $800 (B&W);  Quarter Page $400 (B&W).  Rates subject to change after effective date above.
Discount:
A 15% discount is available for contracts of three or more consecutive issues of the APMP journal with payment in advance.
Schedule (Spring and Fall Issues):
• Ad commitment (50% min. deposit required) – Due February 25 (Spring) or August 25 (Fall).
• Photo-ready Copy & Art Due to Versatype – Due March 10 (Spring) or September 10 (Fall).
• Final Payment Due to APMP – Due March 20 (Spring) or September 20 (Fall).
To Secure Advertising Space:  Please contact David Winton at (909) 659-0789; email:  apmpinfo@aol.com or Barry Fields at (406) 454-0090; email:  b.n.fields@worldnet.att.net.
Advertising Format and Guidelines:
• Submit all camera-ready artwork at 133 to 150 lines-per-inch resolution.
• Full bleeds for both color and B&W are acceptable.
• For technical assistance, contact Patti O'Brien at VersaType; (562) 432-4086.

MEMBERSHIP: APMP is an association formed to support men and women involved in proposal management and development. Its mission is to advance the arts, sciences, and technology of proposal management and promote the professionalism of those engaged in those pursuits through the sharing of non-proprietary proposal methods, approaches, and processes. APMP conducts meetings and events, both on a national scale and at the local level through individual chapters. Our annual membership fee is $75. Please make your check payable to APMP. APMP's Federal Tax I.D. Number is 87-0469987.
You may obtain a membership form in Adobe Acrobat/PDF format from the APMP Web site http://www.apmp.org. Send your completed membership form to: APMP Attn: Membership Applications, P.O. Box 1172, Idyllwild, CA 92549-1172. (909) 659-0789, (909) 659-8589 Facsimile.