USD (AT&L) ITSWG 02-Q-4655 BAA PACKAGE
FUNDING REQUEST

Between

WRIGHT-PATTERSON AIR FORCE BASE

and

LEADER TECHNOLOGIES LLC

and

UNIVERSITY OF DAYTON RESEARCH INSTITUTE

For

ADVANCED CROSS-PLATFORM COMMUNICATIONS ENVIRONMENT
AND ANTI-TERRORISM COMMAND CENTER PROTOTYPE

Prepared by

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and

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2 Problem Statement

"One of the things that the president has commissioned me to do in his Executive Order is make sure that the gap, the delay in information-sharing no longer exists as we combat this war on terrorism." Tom Ridge, Director for Homeland Security, December 17, 2001

"A lack of technology needed to analyze and integrate data from disparate sources is proving to be an early answer to people asking how the U.S. disaster could have occurred, security experts admit." InfoWorld, September 14, 2001

This same problem statement can be applied to the customer of this proposed BAA grant, namely Wright Patterson Air Force Base, Douglas W. Fleser, Deputy CIO. Mr. Fleser has identified 4 areas of priority for WPAFB: records management, acquisitions, management, engineering collaboration, and knowledge management. Prior to September 11, 2001, Mr. Fleser felt and growing sense of priority and urgency to these priorities as they related mainly, at the time, to the coming "brain drain" of federal employees with significant knowledge of our most critical defense systems, and, as it related to facilitating secure, distributed engineering collaboration environments across the United States Air Force communications network.

The tragic events of September 11, 2001 have only served to heighten the priority for what Mr. Fleser had previously identified as his set of needs. In fact, this WPAFB BAA can very clearly "kill two birds with one stone" by becoming the prototype for a NORAD-like Anti-terrorism Command and Control Theater for potential use by the Secretary for Homeland Security that is fed data from existing data repositories. This same system can then be evaluated for use in related security applications with the Center for Disease Control (CDC) and the Federal Emergency Management Agency (FEMA).

3 Objectives

To implement a new Leader2Leader™ enterprise-wide collaboration environment at Wright Patterson Air Force Base (WPAFB) that satisfies priority WPAFB infrastructure needs in records management, acquisitions, management, engineering collaboration, and knowledge management.

To develop LeaderCube™ data integration modules as bridges between six high priority WPAFB data repositories and the Leader2Leader™ collaboration system.

To build a prototype NORAD-like Anti-terrorism Command and Control Theater at WPAFB to evaluate the capabilities of the Leader2Leader™ / LeaderCube™ environment for use as the collaboration engine for inter-agency collaboration within the DoD, DCD, FEMA, etc.
4 Summary of Approach

Leader uses a combination of Waterfall and Extreme programming engineering methodologies project methodologies. The Waterfall methodology is employed up to the alpha phase of a project, at which time the team switches to Extreme Programming methods to drive the product through testing and into production. This combination of methodologies has proven quite successful in the completion of Leader’s first commercial product, LeaderPhone™ Teleconferencing Services.

WPAFB will become a customer for the LeaderPhone™ Teleconferencing Services. WPAFB will determine whether it wishes to use the LeaderPhone™ services using Leader’s existing external infrastructure or whether it may wish to install the LeaderPhone™ technology within its firewalls. WPAFB will become a classical beta customer for the full Leader2Leader™ platform and will receive commensurate licenses to do so. Leader will develop LeaderCubes™ according to specifications developed jointly with WPAFB for the tying of WPAFB mission-critical systems with Leader2Leader™ after which WPAFB will receive a perpetual internal license to the LeaderCubes™ according to the BAA intellectual property agreement.

5 Team Qualifications & Resources

The Leader team is staffed with information technology and management veterans with extensive, multi-disciplined skills in all phases of this project from organization and management to programming, implementation and customer support. In fact, the Leader resumes read like a Who’s Who in American business and technology. To name a few and their accomplishments:

a. Michael T. McKibben, Founder & CEO – Formerly, rebuilt AT&T’s Windows messaging and enhanced fax infrastructure; the principal designer of Leader2Leader™

b. Brad Whiterman, CTO – Formerly, conceived and built the Shared Data Warehouse for the Department of Defense

c. Ed Detwiller, Director – Formerly, built and managed Bank One’s thrice-redundant global banking infrastructure.

d. Jeff Lamb, VP of Engineering – Former senior architect for the National Air Intelligence Center (NAIC)

e. Steve Hanna, Project Manager – Former Lockheed and Oracle senior project manager for SIGINT projects at WPAFB

f. Professor James Chandler, Director – President of the National Intellectual Property Law Institute and a principal security, intelligence and intellectual property advisor to over 202 jurisdictions worldwide.


h. University of Dayton Research Institute -- Staff with approximately 30 full-time engineers, scientists, and support personnel with annual revenues exceeding $40M,
provides basic and applied research for government and industry. UDRI has both a long history of IT development (see Appendix C) and long-standing R&D relationship with numerous entities at WPAFB.

i. Clancy W. Cross, Associate Research Analyst, UDRI – Currently head of the UDRI Web Development Center

j. Ronald L. Thomas, Senior Software Engineer – Responsible for proposals, design and implementation for the UDRI Web Development Center

Leader currently has the facilities and computer resources to build and support this proposed project. Leader has approximately 6,000 square feet of secure engineering and management facilities in Westerville, Ohio and employs over 20 full-time people. Leader’s facility is secured to a high commercial standard, including video surveillance, intrusion, fire and smoke detection. Leader also leases co-location facilities in the Columbus area as well as maintains robust development servers on premises. Leader will soon expand its co-located facilities within a major telco provider. UDRI will use existing facilities to provide the documentation, training and testing services specified in this proposal.

6 Expected Outcomes

6.1 Deliverables

a. Leader2Leader™ software licenses for 20,000 WPAFB employees

b. Six (6) LeaderCube™ unlimited (for internal use) software licenses with full documentation

c. Six (6) WPAFB data repositories fully integrated into the Leader2Leader™ platform

d. Leader2Leader™ hardware and hosting platform fully tested and operational at WPAFB

e. WPAFB customer and technical support staff trained and in place

f. A NORAD-like Anti-terrorism Command and Control Theater full operational in prototype form at WPAFB or other mutually suitable location.

6.2 Timing

a. Leader2Leader™ platform installation and training will be fully implemented by the end of Q1 of 2002.

b. LeaderCube™ development, testing, implementation, documentation and training for six (6) modules will be completed by the end of Q2 of 2002.

c. The NORAD-like Anti-terrorism Command & Control Theater prototype will be completed by the end of Q2 of 2002, unless this priority is moved up by BAA to address the pressing needs of the Secretary for Homeland Security.
6.3 Benefits to Client

a. WPAFB will receive a working, integrated, scalable, flexible solution to its Records Management, Acquisitions Management, Engineering Collaboration and Knowledge Management priority projections in a time frame that is factors ahead of where WPAFB thought it could be in a 6-12 month time frame if all of these projects were let separately.

b. BAA will have a fully operational NORAD-like Anti-terrorism Command and Control Theater prototype from which various applications and uses can be determined — all in a very short period of time; much shorter than if all those projects were just going out to bid in the coming months.
SECTION 2

Program Details

1 Problem Statement

"One of the things that the president has commissioned me to do in his Executive Order is make sure that the delay in information-sharing no longer exists as we combat this war on terrorism." Tom Ridge, Director of Homeland Security, December 17, 2001

"A lack of technology needed to analyze and integrate data from disparate sources is proving to be an early answer to people asking how the U.S. disaster could have occurred, security experts admit." InfoWorld, September 14, 2001

"The anthrax crisis has exposed a national public health IT infrastructure that's seriously ill-prepared to deal with such an emergency. In fact, that infrastructure is so antiquated that the Centers for Disease Control and Prevention likened it to a "pony express" system that relies on paper-based reports and phone calls in a world driven by the speed of the Internet... only half of the country's 59 state and territorial health departments and 6,000 state and local health departments and boards had full-time Internet connectivity..."

Computerworld, October 22, 2001

Ignoring the total lack of even the most rudimentary technology, where technology exists a statement like "A lack of technology needed to analyze and integrate data from disparate sources" is as good a problem statement as any. Further investigation, however, reveals a troubling nest of culprits1 that demand a common solution to root them out. The culprits are:

- **Control & Rapid Response** – Absence of a control center to coordinate global human, signals, imaging and other intelligence from disparate sources.
- **Integration** – Absence of a common repository for collaboration around and analysis of human and signals intelligence; absence of an infrastructure to share intelligence data across discreet intelligence networks; failure of technology aggregation approaches to solve the problem.
- **Human Capital** – Ineffective methods to prevent "brain drain" when experienced personnel retire; a.k.a. knowledge management.
- **Distributed Engineering** – Ineffective engineering collaboration infrastructure across multiple networks and commands.
- **Security** – Highly vulnerable systems infrastructures founded upon ineffective security models that are being further eroded by the sheer volume of daily intrusions.

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Past solutions attacked each of these needs independently of the others. These approaches created vertical "silo" solutions -- solutions that solved a particular set of problems without consideration of the larger context.

For example, discrete records management solutions each have specific approaches for indexing documents. These solutions usually involve typing specific keywords that can be used to search for the document later. This approach may work if the user is sitting in front of a computer terminal for long stretches of time. However, they are impractical for senior management, for example. More senior people spend much less time in front of a computer terminal. And, when they do sit down in front of a machine, they do not have the time to methodically catalog each and every document they review. In this example, the "silo" solution for records management rendered that records management system ineffective for use as a "human capital" tool for capturing the knowledge of senior management.

Wright Patterson Air Force Base (WPAFB) has identified four specific areas of need that are the subject of this BAA proposal. WPAFB has needs in (1) Records Management, (2) Acquisitions Management, (3) Engineering Collaboration, and (4) Knowledge Management. The WPAFB requirements in these four areas all point to a set of common themes that lead us back to our basic premise that a fundamental lack of technology currently exists to address these solutions adequately and in a multi-disciplined way.

More generally, engineering, intelligence, enterprise management, customer service, rapid deployment environments all need an integrated solution to these problems. Up till now the market response has been aggregation. Government vendors have tried to aggregate every permutation and combination of off-the-shelf solution. They haven’t worked, as the horrible events of 9-11-01 proved. Aggregation is not the solution. Aggregation creates Rube Goldberg devices, not elegant, straightforward ones. True integration at the architectural level is the need and the solution. However, such work is extremely difficult, time consuming and requires cross-disciplined experts in not only technology but social engineering.

Unfortunately, the term “systems integration” has become a euphemism for aggregation (of off-the-shelf “silo” approaches), not true integration (of real-world, contextual work processes). What the problems above require is true integration.

2 "Silo" technology solutions quickly render themselves ineffective as integrated solutions due to technical design constraints. Design assumptions get hard coded early in the programming process and become inflexible outside the design assumptions on which the coding focused. Custom approaches quickly develop at every level of the coding from the front end interfaces, to the business logic, to the database design and stored procedures. Taken together, these constraints are painfully hard to undo later; or, if changes are made, these programs can quickly become convoluted Rube Goldberg contraptions.
True Integration for:
- Intelligence
- Engineering
- Enterprise Management
- Customer Service

The Communications "Glass Ceiling"

Figure 2: The Communications Technology "Glass Ceiling"
Since aggregation has not proven effective, what is the solution? The solution is a new, more contextual approach. With the benefit of hindsight, we can now go back and take a critical look at the design assumptions made when the various silo solutions were devised. What did we do right? What did we do wrong? Where were we shortsighted? Where could be not possibly have foreseen the problems that current experience tells us exist? What research advances change our underlying assumptions about constraints and opportunities.

The fact is, no significant advances have occurred in collaboration for a decade. Shared folding championed by groupware is a decade old now. However, groupware emerged in the heyday of client-server. While valiant attempts have been made to incorporate Internet technologies into these technologies, these attempts suffer greatly from the Rube Goldberg syndrome.

Figure 3: The Confusion in the Communications Technology Marketplace exists because vendor marketing presentations tend to overlap benefits stories, when in fact, the promises are several ripples removed from the core of any particular technology.
Perhaps an automobile analogy may help. Today's aggregated collaboration solutions are akin to building a car with a potpourri of parts from GM, Ford, Chrysler, Mitsubishi, Yugo, Trabant, Fiat, Honda, Toyota, Volvo, Honda, Duct Tape, Super Glue, axle grease, a hammer, bungee chords and homemade parts. The result? An inflexible device that runs but is certainly user-unfriendly. Such is the state of affairs today in the collaboration arena.

The solutions to this problem is a complete RE-THINK of the problems and better solutions. In the past, the focus has been on using what has already been built and trying to make it work for an ever-expanding set of requirements. This approach breaks down once one gets more than a couple of iterations away from the core design specification. After that, the software becomes Rube Goldberg and quickly becomes a backhanded way to solve a straightforward problem. This creates a tremendous amount of "solutions noise" in the marketplace as vendors working from different core technologies (e.g., document management, messaging, groupware, knowledge management, portals, ERP) work to adapt their basic story to the story flavor preference of the moment -- whether their solution is right for the problem or not. "Make it work" has been the name of the game. The following illustration shows how various core technology stories now overlap one another in the marketplace, creating more confusion that solution.

A Truly Integrated Solution
A dynamic, scalable, rapidly deployable communications environment is called for. Such an environment is:

- **Adaptable** -- Can adapt to changing requirements, people and circumstances without having to reprogram it.
- **Scalable** -- Can accommodate and support millions of people, or just a few.
- **Flexible** -- Can allow for a continuum of control and deployment needs from highly centralized command and control to highly de-centralized and distributed
- **Secure** -- Is highly secure and employs current standards and protocols without the inherent security vulnerabilities of those standards.
- **User-friendly** -- It is friendly, easy to use and can be accessed from a variety of devices all the way from handheld wireless devices to the most sophisticated engineering computers.
- **Compatible** -- Allows for seamless integration with of current systems
- **Platform Independent** -- Can run on multiple vendor platforms
- **Supportable** -- Able to be broadly maintained using existing workforces and skill bases.
- **Timely** -- Able to be deployed quickly to meet the serious requirements being put forth for intelligence gathering and analysis within such agencies as the FBI, CIA, CDC, FEMA, Regional and Local Law Enforcement, Fire & Emergency Coordinators, and others.
2 Objectives

Michael T. McKibben formed Leader Technologies in 1997 with the specific intent to
breakthrough the collaboration technology “glass ceiling.” That led to the recruitment of
a technology “dream team” and a 3-year research and development effort that has led to
the development of an entirely new enterprise collaboration platform called
Leader2Leader™. A part of this platform, namely LeaderPhone™ Teleconferencing
Services, is now out of beta and commercially available. Leader2Leader™ is currently in
alpha testing.

Leader2Leader™ capabilities have been demonstrated to Douglas W. Fleser, Deputy CIO
- Business at Wright-Patterson AFB (WPAFB). Mr. Fleser immediately saw applicability
to 4 prior areas at WPAFB.

Mr. Fleser identified the following high priorities at WPAFB:

1. Records Management -- A records management initiative is beginning at
WPAFB to standardize the indexing and retrieval of electronic documents across
multiple repositories. This is part of an AF-wide electronic records management
effort using a module of LiveLink known as IRI.MS.

2. Acquisitions Management -- Knowledge Management An enterprise initiative is
underway at WPAFB to reorganize the management of acquisitions into an
Enterprise Management concept linking communities of interest associated with
Aerospace systems. That concept will provide a single point of contact for all
other Major Commands for issues related to Aerospace systems. Improved
knowledge management and collaboration capabilities will be required to
effectively provide the right information and management tools for this concept to
succeed.

3. Engineering Collaboration -- A collaborative initiative is underway within the
Air Force Research Lab (AFRL), the High Performance Computing Group
(WPAFB) and other partners to share R&D results more effectively among
engineering teams.

4. Knowledge Management -- A knowledge management initiative is planned and
needed to ensure that the “corporate knowledge” possessed by soon-to-retire
senior staff isn’t lost when those people retire and to improve the productivity of
the staff that has been “downsized” over the last several years.

5. Data Migration – WPAFB has numerous data repositories running on a variety
of aging platforms. Aging platforms require replacement strategies, some of
which are extremely difficult to accommodate, sometimes due to the economics
involved and other times due to technical difficulties of these proprietary systems.
Since the events of September 11, 2001, the need for this WPAFB work has intensified. In fact, the WPAFB project can be the prototype for a NORAD-like Big Board Theater facility using Leader2Leader™ that could be used to help US intelligence services under the new Secretary for Homeland Security to better coordinate cross-agency intelligence efforts.

The WPAFB project needs to have built certain integration modules that will bridge WPAFB’s existing data repositories with Leader2Leader™. This technology can then be applied to other data repositories in the various –INTs as the collaboration efforts intensify under the Secretary for Homeland Security. Ironically, this integration plan was already drawn up by Michael McKibben at Leader in cooperation with Doug Fieser at WPAFB prior to September 11.

In short, the prospective WPAFB-Leader-UD BAA project can see a fully functioning inter-agency collaborative environment up and running as early as the first quarter of 2002 by piggybacking this proposed BAA.

3 Summary of Approach

This BAA will attack WPAFB’s 4 areas of priority. This will involve the licensing of Leader2Leader™ as well as the development of LeaderCube™ that will facilitate integration of existing WPAFB data repositories into the Leader2Leader™ collaborative environment.

Simultaneously, we will construct a NORAD-like theater prototype at WPAFB that will show how the Leader2Leader™ system can be used to coordinate multi-agency cooperation.

Leader uses a combination of Waterfall⁴ and Extreme Programming (XP)⁵ project approaches. Waterfall is used at the beginning of a project to scope the work to be performed, timelines, staffing, resources and budgets. Waterfall is maintained through to the beginning of the alpha testing phase. At alpha testing, the Leader programming team shifts to Extreme Programming in order to shorten turn around times, enable more experimentation with feature and function enhancements, and speed time to completion.

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⁴ Online: http://courses.cs.vt.edu/cor510/SE/Lessons/Waterfall/Lesson.html
⁵ Online: http://www.extremeprogramming.org/map/project.html
LeaderCubes™ development will involve WPAFB identifying its top five priorities for integration of existing data repositories. Their top priority has already been identified as the LiveLink records management system. The LeaderCube™ specification will entail two levels of functionality. Level one will be the specific read-write-move-delete-migration functionality and user interfaces required for all LeaderCubes. Level two will be the specific integration requirements for the data store in question, i.e., in the case of LiveLink, the specific peculiarities of integrating to LiveLink’s storage and retrieval model and APIs. We estimate that each of these cubes will require about 1000 hours of programming. Given this, a Waterfall project plan will be developed first, then approximately 500 hours into the development of a given cube, the team will transition into an Extreme Programming mode as the alpha version starts to be tested with live WPAFB data and operating environments.

Simultaneously, the platform requirements needed to run Leader2Leader™ will be acquired and installed in a suitable facility in coordination with WPAFB personnel.
Leader2Leader™ alpha/beta code will be installed on this platform. WPAFB will select beta users who will be subscribed to the system and who will commence work with Leader in beta testing. As the LeaderCube™ are developed in cooperation with appropriate WPAFB project teams, they will be implemented and tested with Leader2Leader™. WPAFB will develop appropriate configuration rules for Leader2Leader™ and each LeaderCube™. WPAFB will also develop and implement a systems support and data migration plan for the entire system.

Leader will work with WPAFB to secure a suitable location within the WPAFB complex to implement a prototype NORAD-like Anti-terrorism Command & Control Center. This center will enable a prototype team of analysts to monitor fixed and ad hoc Leaderboards™ as well as monitor output from existing WPAFB data repositories. This prototype center will show how various teams of internal and experts can collaborate "on the fly" using disparate input and output devices (e.g., wireless, handheld, browser, phone, fax, email, edi, ftp, im) and how this cross-agency cooperation can enhance the capabilities of our security services to coordinate efforts in real time or near real time.

WPAFB requirements are in complete synergy timing-wise with Leader’s intensive R&D efforts over the preceding three years. Prior to meeting Leader, WPAFB personnel were frustrated with the existing fare. In fact, WPAFB has tried every flavor of existing solutions and find those solutions to be falling well short of expectations. Leader’s vision, products and approaches have found significant agreement with WPAFB experience and needs. And, while Leader is a relatively new company, it is staffed by industry veterans who bring world-class skill and substance to the solutions being offered to WPAFB. In addition, the additional synergy involved with the simultaneous testing of a new NORAD-like Anti-terrorism Command & Control Center gives the government significant value for the dollar.

4 Team Qualifications

The Leader team is comprised of industry veterans, experienced in every phase of the technical and organizational task at hand. The following is their experience in brief.

Leader Founder and CEO Mike McKibben, in addition to being a highly-experienced entrepreneur, re-built AT&T’s Windows messaging/enhanced fax infrastructure in the mid 1990’s, taking over a project that had been in AT&T Bell Labs’ control for 15 years. Supported AT&T’s Fortune 1000 clients and their 250+ person messaging/fax/edi sales and technical force.

CTO Brad Whiteman designed and built the Shared Data Warehouse for the Department of Defense under the Contract Management / Contract Payment Applications Development Division where he managed a staff of more than 50 people. Mr. Whiteman is a former Lieutenant in the US Navy.

Director Ed Detwiler, as Senior Vice President of Bank One, built Bank One’s global data processing infrastructure with triple redundancy approximating 3,500 MIPS.
(millions of instructions per second) and over 30 terabytes of online data storage. He ran Bank One’s 24x7x365 systems with 260 people and 99.99% production reliability. Mr. Detwiler is a US Army Vietnam Veteran.

Vice President of Engineering Jeff Lamb was a Senior Software Architect at the National Air Intelligence Center (NAIC) and is a former Captain in the US Air Force.

Michael Orelrich, Vice President of Operations Support was the Chief of Systems Integration for the Defense Finance and Accounting Service responsible for the consolidation of 24 DoD data processing centers into the Mega Center and was nominated DLA Employee of the Year in 1989.

Steven Hanno, Project Manager, former Project Manager for Lockheed Martin and Oracle working on IMINT systems at WPAFB.

Wayne F. Dugal, Telco Systems Architect Chief Architect, former Qwest Virtual Private Network. Mr. Dugal is a former Captain, US Army Signals Corp.


Leader programmers: Eric Rosenberg, Bud Budireko, Mark Astin, and Wendy Adams were all software engineers for the National Air Intelligence Center (NAIC) and all Captains in the US Air Force except for Mr. Rosenberg who was a Lieutenant.

Karen House, Director of Operations, former Director of TW Recreational Services, with full responsibility for 10 state part resort hotels in Ohio and New York; former Director of Food and Beverage Management for Yellowstone National Park. Has managed up to 17 operations and 1,100 employees with budgets exceeding $25 million.

Other Leader Directors include:


Steven P. Gonzalez, Director former Vice President of AT&T for IP Services, Eastern Region, including Manhattan, the World Trade Center, and Wall Street

Other key Leader Advisors include:
William DeGenaro, former Advisor White House Director of Strategic Countermeasures Planning for Presidents Reagan and Bush; 3M Strategic Planning Director; Co-founder of The Centre for Operational Intelligence

Leonard Zawistowski, Advisor Senior Investigator, Federal Reserve Bank

University of Dayton Research Institute, Clancy Cross, Director, and Ronald L. Thomas, Senior Software Engineer, Leader's BAA Partner – The University of Dayton Research Institute (UDRI) staff of approximately 300 full-time engineers, scientists, and support personnel with annual revenues exceeding $40M, provides basic and applied research for government and industry. UDRI has both a long history of IT development (see: Appendix C) and long-standing R&D relationship with numerous entities at WPAFB. Consequently, UDRI brings a solid, local-to-Dayton, support infrastructure needed to provide continuity in critical areas of this project such as training, testing, systems integration, documentation and sustainability. In addition, UDRI is intimately familiar with the administrative and security requirements at WPAFB. In a phrase, the organizational relationships between WPAFB and UDRI are longstanding.

Organizationally, the Leader team is a list of performers who have proven themselves time and again in their careers. Mike McKibben has been an entrepreneurial veteran and is extremely skilled at the dynamics of start-up, infrastructure building, staffing, training, motivation, recruiting, financing, and executive oversight. Ed Detwiler joined Bank One in its early days, grew and managed its IT infrastructure into the powerhouse it is today. Brad Whiteman conceived, organized, secured funding and implemented the Shared Data Warehouse concept for the Department of Defense and is familiar with the practical and political issues involved with implementing an IT project successfully within the federal arena. Michael Greulich's skills may be unsurpassed in federal circles, having been responsible for the consolidation of 24 DoD data processing centers in a 3 year time frame. We could say more, but I think this gives a flavor of the caliber of organization talent Leader has assembled.

With regard to the specific talents and skills of the aforementioned people, those are described in the table below.

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
</tr>
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<tbody>
<tr>
<td>Michael T. McKibben, CEO</td>
<td>Entrepreneur, leadership, vision, strategy, management, marketing, sales, investor relations, strategic relationships, product design, recruiting</td>
</tr>
<tr>
<td>Brad L. Whiteman, CTO</td>
<td>R&amp;D oversight, product planning, project management, architecture, programming, technical and customer support</td>
</tr>
<tr>
<td>Jeff Lamb, VP of Engineering</td>
<td>R&amp;D oversight, architecture, programming, testing, project planning</td>
</tr>
<tr>
<td>Professor James P. Chandler, PhD, Director</td>
<td>Intellectual property, security, legal strategies</td>
</tr>
<tr>
<td>Edward B. Detwiler, Director</td>
<td>Product design, client systems planning</td>
</tr>
</tbody>
</table>

24x7 reliability, alliances, intellectual capital standards, and overcoming the negative impacts of technology on enterprise culture

Bud Budrenko, Network Architect
Programming, design, network management

Mark Astin, Systems Architect
Programming, architecture, design

Wendy Adams, Programming Architect
Programming, architecture, design

Steven Hanna, Project Manager
Project and operations management

Eric M. Rosenberg, Systems Architect
Programming, architecture, design

Stephen D. Engle, Teleco System Manager
Telecommunications architecture, recruiting

Wayne F. Dugan, Teleco Systems Architect
Telecommunications architecture, programming, testing

David Eaton, Database Architect
Database architect

Michael J. Groulich, Network Infrastructure
Quality assurance, staffing, policies and procedures, project management, project support, resource allocation and research and development support

Major General James E. Freeze, US Army (ret.), Director
Corporate and data security

William DeGenaro, Advisor
Business intelligence, security, strategy

Steven P. Gonzalez, Director
Sales and marketing, strategy

Leonard Zawistowski, Advisor
Security

Clancy W. Cross, UDRI Chief
Project management, design

Ronald L. Thomas, UDRI Senior Engineer
Programming, documentation, testing, systems integration

Benjamin Zacks
Legal, contracts

Betsy Foote
Programming

Andrea Geig
Programming

Tim Fathbreukner
Programming

Bill Robertson
Programming

Kim Sanders
Programming

David McManus
Documentation, writing

Gloria Schuman
Accounting

Chris Pullins
Programming

Carrie McKibben
Clerical, record keeping, logistics

Vonda Bankhart
Clerical, accounting, logistics
Dave Harlen  Programming
Andrew Barnhart  Programming
University of Dayton Research Institute  Documentation, testing, training, systems integration

Leader leases approximately 6,000 square feet of office space in Westerville, Ohio. The company manages a development server and corporate data servers at this location. The facility is secured by full intrusion detection (motion, glass breaks, door switches), including fire and smoke alarms throughout. The facility maintains a complete video surveillance capability over all critical and common areas with links to a third party monitoring company that maintains close contact with the Westerville Police Department. The facility is zoned for added security with all critical areas and executive offices having their own entry security keypad. The company also leases space for its teleconferencing production system in a third party co-location facility in Columbus and is in negotiations to acquire a third lease for co-location services from a prominent telecommunications company. In total, the company possesses in excess of $1 million dollars of hard computer assets. These hard and soft assets would be substantially applied to the execution of this BAA.

5 Expected Outcomes

5.1 Deliverables

a. Leader2Leader™ software licenses for 20,000 WPAFB employees
b. Six (6) LeaderCube™ unlimited (for internal use) software licenses with full documentation
c. Six (6) WPAFB data repositories fully integrated into the Leader2Leader™ platform
d. Leader2Leader™ hardware and hosting platform fully tested and operational at WPAFB
e. WPAFB customer and technical support staff trained and in place
f. A NORAD-like Anti-terrorism Command and Control Theater full operational in prototype form at WPAFB or otherwise mutually suitable location.

5.2 Benefits to Client

a. WPAFB will receive a working, integrated, scalable, flexible solution to its Records Management, Acquisitions Management, Engineering Collaboration and Knowledge Management priority projections in a time frame that is factors ahead of where WPAFB thought it could be in a 6-12 month time frame if all of these projects were let separately.
b. BAA will have a fully operational NORAD-like Anti-terrorism Command and Control Theater prototype from which various applications and uses can be determined – all in a very short period of time; much shorter than if all those projects were just going out to bid in the coming months.
SECTION 3

Technical Information

1. Purpose

Provide a comprehensive collaborative environment that incorporates search, access and retrieval to existing data repositories as well as provide a command and control display environment for cross-department collaboration, data sharing and data storage, most specifically for anti-terrorism priorities.

2. Problems Solved

With the exception of E-mail, data sharing and collaboration is platform-specific. Cross-platform sharing of data in a dynamic collaboration environment is difficult and tends to be built to rather static, ad hoc specifications. These systems are generally not scalable. Leader2Leader™ provides the opportunity for a scalable, platform independent enterprise collaboration and communications environment with a data repository structure that can adapt to the needs of the moment without any underlying change to is core programming.

3. Technical Background

Leader2Leader™ was conceived and designed initially by Michael T. McKibben, founder of Leader Technologies. Mr. McKibben assembled a core of veteran IT professionals to complete this massive R&D project that has taken three years. Leader chose to team with UDRI to help facilitate the documentation, training, systems integration and support for this project. WPAFB has identified four priority areas in the coming years to which Leader2Leader™ can facilitate. Those areas are: records management, acquisitions management, engineering collaboration and knowledge management.

4. Operational Constraints

WPAFB will need to allocate hosting space for the Leader2Leader™ servers within its existing IT infrastructure. All other resources required to accomplish this task are already available to the participants or are included in this proposal. No obstacles are foreseen.

5. Solutions Uniqueness

The Leader2Leader™ solution overcomes, by design, the vertical “data silo” problems that plague cross-department, cross-agency and cross-enterprise collaboration. In the past these solutions have been ad hoc, custom solutions that required heavy support. Leader2Leader™ will provide such a scalable collaboration environment and allow for the seamless integration of existing data repositories by way of the LeaderCubes™ that will be developed in this project. The underlying security model for collaboration has been re-thought in Leader2Leader™. This provides a completely ground-up rethink of
the endemic weaknesses of existing collaboration offerings. After 3 years of extensive, world-class research, Leader believes it has discovered this endemic weakness in cross-platform collaboration and has fixed it in its Leader2Leader™ platform. Leader further believes that the deficiencies in our intelligence gathering and coordination currently being publicized in glaring detail in the world press points directly to this problem which Leader has crafted a solution.

6. Technical Description of Solution

Leader2Leader™ is an applications framework that accommodates different types of content with different types of metadata to perform different operations such as add, edit, linking, versioning, storage structure, ownership and permissions. LeaderCube™ allows objects with metadata that has not been previously defined by the system (at creation) to be included in this framework. Leader2Leader™ is an object-oriented framework that persists to a relational database. It includes a telephony platform that talks to the global phone network and provides fax, voice mail and conference calling functionality within this framework.

7. List of Modules and Components

Leader2Leader™ is comprised of sixty (60) patents and/or patentable inventions, Seven hundred Ninety-Two (792) proprietary marks and topology, Two Thousand Eight (2008) copyrights, and Two Hundred Eighty-Eight (288) related domain names. LeaderCube™ will be comprised of six (6) data management packages of code.

8. Functional Integration

The Leader2Leader™ product interface unifies its various components into a dynamic, unified interface that allows access to all features from a common browser interface. The LeaderCube™ components will reside on the third party data repository server and coordinate file sharing between that third party repository and the Leader2Leader™ data server functionality.

9. Status of Project Components

The conference calling component of Leader2Leader™ is tested and commercially available. The Leader2Leader™ core engine is in alpha testing. The installation of Leader2Leader™ licenses at WPABF awaits the beta phase of Leader2Leader™ in which WPABF will participate and awaits commencement of this BAA. The LeaderCube™ application modules will be developed as a part of this BAA. The provision of documentation, testing, training and systems integration support for the Leader2Leader™ system at WPABF awaits commencement of this proposed BAA. The construction of a NORAD-like Anti-terrorism Command and Control Theater awaits commencement of this BAA.
10. Quality Assurance

We use a standardized suite of tests that a programmer is required to run anytime he or she makes a change to any portion of the application. This initiates a regression test of the various application components. In addition to that, we have specific testers who test the application prior to any updates going out. These testers catch any inconsistencies in the interface or problems with the functionality. If a problem is found, the tester feeds back his or her findings to the relevant programmer who corrects the problem and retests prior to release. We use a product defect tracking system called GNATS.

11. Usability Testing

Because it is browser-based, we have to worry less about user environments. We must test in various browser environments (e.g., MSIE4+ and Netscape 4+).

12. Load Testing

Automated products assist in simulating various loads on our applications. We have reviewed the product offerings of several companies who provide this kind of specialized software and have settled on LoadRunner™ by Mercury Interactive.6

13. Beta Testing

We provide the application to a series of customers using a variety of different use environments in order to receive useful testing information on usability, design, functionality, utility and performance. We then systematically increase the number of beta customers on a single site to provide us with application load measurements. This data allows us to identify areas of the application that are not performing optimally and allows us to improve those areas prior to release to the user community.

14. Programming Methods

We use a combination of Waterfall and Extreme Programming methodologies. Waterfall methods are used for project specification through to alpha testing. From alpha testing forward we use Extreme Programming methodologies.

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6 Online: http://www-heva.mercuryinteractive.com/products/loadrunner/
**15. Project Plan Management Milestones & Deliverables**

This BAA is a one-year contract with a five-year tail. All of the heavy development work will occur in the first 12 months. The ensuing 5 years of the tail will entail some hardware upgrading as well as ongoing Leader2Leader™ licensing and a support contract.

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Requested</th>
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<td>UD - Cube Dev.</td>
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<td>WPAFB - Platform Expenses</td>
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Product Deliverables

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<td>Leader™ Beta Installation</td>
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<td>NORAD-like Anti-terrorism Theater Prototype</td>
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<td>Leader™ Enterprise Installation</td>
<td>Leader2-Cube™ 5 &amp; 6</td>
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## BAA Funding Request
Prepared by Michael T. McKibben, CEO, Leader Technologies & Clancy Cross, University of Dayton
Phase 2 Project Plan, Deliverables & Use of Funds
25-Oct-01

### WPAFB-IID Leader Project Costs Worksheet

<table>
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<th>Unit descriptor</th>
<th>Costs</th>
<th>Cost per unit descriptor</th>
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<td>Leader</td>
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<td>External Bandwidth</td>
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Total R&D Costs: $62,000,000

SECTION 4

Capabilities

1. Facilities

All of the parties involved with this proposal currently possess facilities and equipment sufficient to carry out this project.

Leader Facilities:
Corporate Headquarters
Spectrum Commerce Center
921 Eastwind Drive, Suite 118
Westerville, Ohio 43081
(614) 890-1986

University of Dayton Research Institute Facilities
Research Institute Web Development Center
Dayton, OH 45469-0151
937-229-3273

Wright Patterson Air Force Base
2435 5th Street
WPAFB-OH 45433-7802
937-904-5103

2. Experience

Leader personnel have collectively engaged in projects of significantly greater size and scope than this BAA project. Leader personnel are proven performers. For example, Michael T. McKibben re-built AT&T's entire Windows messaging infrastructure, from scratch in 1/6th the time and 1/6th the cost of what AT&T Bell Labs was going to charge its own AT&T business unit.

Michael Greulich was charged with consolidating 24 DoD data processing centers into a Columbus Mega-center. He did so with skill and finesse. He achieved this goal by a masterful blend of technical savvy as well as cultural savvy. He was able to convince the personnel at those 24 DoD data processing centers to help him in this effort even though these same people would be out of a job as soon as their task was finished.

Ed Detwiller built and maintained three redundant data centers for Bank One, the fourth largest banking system in the United States.

Brad Whiteman solved an enormous headache for the Department of Defense in devising a way to have real-time or near-real-time contracting data available online. This was especially difficult when many of the data systems housing this data resided on batch-
processed mainframes. Mr. Whitman successfully conceived of, planned, secured funding, built and managed the Shared Data Warehouse for the Department of Defense before coming to Leader.

Jeff Lamb was a highly recruited Java programming expert whom the Air Force parked at the National Air Intelligence Center. There Mr. Lamb worked on system functionality streamlining and upgrades to current systems.

Steve Gonzalez is a former Sales Vice President of AT&T literally built from scratch a 150+ man electronic commerce sales force for AT&T. This sales force was highly profitable before being folded into AT&T’s overall Internet strategy at which time Mr. Gonzalez was assigned to head up IP Service sales for the entire Eastern Region, Manhattan and the Financial District.

Professor Chandler consults regularly with business, commerce, judicial, government and educational leaders across the United States and around the world. Many consider him the world’s foremost expert on intellectual property and intelligence matters. He established the intellectual property curriculum at George Washington University and helped the Patent & Trademark Office establish their Computer & Software Division. He authored the Uniform Trade Secrets Act and the Economic Espionage Act of 1996.

Major General James Freeze, US Army (ret.) led the US Army Security Agency and was Asst. Deputy Director of the National Security Agency. After retiring from the Army, General Freeze was hired by the Department of Energy to perform a thorough security review for the DOE, a seminal work known as "The Freeze Report."

The preceding discussion gives a flavor of the caliber and capability of the talent that Leader has assembled.

The University of Dayton Research Institute staff of approximately 300 full-time engineers, scientists, and support personnel with annual revenues exceeding $40M, provides basic and applied research for government and industry. UDRI has both a long history of IT development and long-standing R&D relationship with numerous entities at WPAFB. Consequently, UDRI brings a solid, local-to-Dayton, support infrastructure needed to provide continuity in critical areas of this project such as training, testing, systems integration, documentation and sustainability. In addition, UDRI is intimately familiar with the administrative and security requirements at WPAFB. In a phrase, the organizational relationships between WPAFB and UDRI are longstanding.

3. Personnel

a. Michael T. McKibben, Chairman & CEO -- Mike McKibben founded Leader Technologies LLC in 1997 to develop and market Leadership Software™ as a new Leadership application network suite. The first commercial release of a component of this suite is the LeaderPhone™ Teleconferencing Service. Previously, as Founder and CEO of Planning Works, Inc. he led the rapid redevelopment of AT&T's flagship
unified messaging software AT&T AccessPlus on all Microsoft Windows platforms in close cooperation with AT&T Bell Labs and multiple AT&T messaging and Internet business units. He has also designed and built software applications for decision support, knowledge management, executive information, personal information management, and personal digital assistants on various platforms. Before transforming his consulting practice into software development, Mr. McKibben spent over ten years as a strategic management and productivity consultant with clients such as IBM, NCR, AT&T, Gillette, PaineWebber, The Bank Administration Institute, The Ohio State University, Chemical Abstracts, National Aerospace Plane Project, and Lennox Industries. He is a graduate in engineering from The Ohio State University and has authored numerous books and publications on leadership and management. Mr. McKibben's leader responsibilities are company vision, strategy, strategic relationships, marketing and sales, investor relations, product design, and recruiting.

b. James P. Chandler, PhD, Director -- Professor Chandler is a leading figure and scholar in intellectual property law and in the protection of United States national and economic security. He is the President of The National Intellectual Property Law Institute (www.nipli.org), Emeritus Professor of Law at the George Washington University, and Chairman of The Chandler Law Firm Chartered. Prof. Chandler has been an intellectual property scholar for more than 20 years and has delivered hundreds of speeches and papers on the topic. An example of Prof. Chandler's work can be read online at the Minnesota Intellectual Property Review. The Science and Technology Section of the American Bar Association and the Computer Law Association of America owe their founding, in part, to Prof. Chandler. He authored The Economic Espionage Act of 1996 (EEA) and co-authored the Uniform Trade Secrets Act. He has been a chief intellectual property advisor to 225 jurisdictions internationally as well as numerous Fortune 500 companies. Prof. Chandler's leader responsibilities focus on all issues surrounding intellectual property and related security matters.

c. Major General James E. Freeze (ret.), Director -- Major General Freeze was formerly head of the US Army Security Agency and Deputy Director of the National Security Agency. His specialty is cryptography. He recently conducted a full security audit for the Department of Energy. His responsibilities as a Leader Director are to head the Security Committee focused on corporate and data security and privacy.

d. Brad Whitman, Chief Technology Officer -- Brad Whitman joined Leader in 1999. Mr. Whitman conceived of, designed and developed the Shared Data Warehouse (SDW) for the Department of Defense, one of the first large-scale implementations of cross-functional data sharing across an enterprise. SDW is the Department of Defense's key to platform modernization. This client server OLTP/OLAP/MMDB system bridges to legacy systems and allows all branches of the Department of Defense to have real-time access to procurement, contract management, E-commerce, finance and accounting applications data interactively. It manages approximately 13.9 million disbursements annually and 1.5 million transactions and queries daily on
$855 billion in total contracts. Mr. Whiteman has managed major supplier relationships with Sun, HP, Oracle, Transo, IBM, Cognos, Informix, Sybase, Red Brick, Microsoft, Cincom and StorageTek. Mr. Whiteman graduated from the University of Iowa. His Leader responsibilities are research and development, product planning, architecture, programming, technical support and customer support.

e. Jeff R. Lamb, Java Architect, Leader Vice President of Engineering, CEO of Computer Wizards Consulting LLC, a Leader subsidiary -- Jeff Lamb is the Founder and CEO of Computer Wizards Consulting and began work with the Computer Wizards development team on Leader projects in 1999. Mr. Lamb, a Sun-certified Java Programmer and highly experienced in Microsoft platforms, has been programming in Java since its initial version 0.6 beta release in late winter of 1996. Other than a handful of people at Sun Microsystems, nobody is more knowledgeable and experienced in Java than Mr. Lamb. In addition to Java experience, Mr. Lamb has years of hands-on experience in databases, software design and engineering, e-commerce, and web-enabling technologies. Jeff has completed a variety of projects for clients including: NCR, The New York Public Library, The National Air Intelligence Center, Witt Plastics, TPIC, InterPersonal Computing, Excellence in Motivation, Digital Controls, Electronic Frontiers, and many others. Mr. Lamb graduated from the University of Illinois. Mr. Lamb's firm, Computer Wizards Consulting, recently became a wholly owned, independently operated Leader subsidiary. His Leader responsibilities include web technologies, architecture, programming, and testing.

f. Edward B. Detwiler, Director -- Ed Detwiler was most recently Senior Vice President of Data Center Operations for Bank One Corporation. He managed an annual budget of $92 million with a capital budget of $82 million. During his tenure Bank One doubled in size every two to three years. His data centers process 200 million online transactions daily using 3,500 MIPS (million instructions per second) and 30 terabytes (a terabyte of information is the equivalent of 250 million pages of text) of disk storage. He was responsible for the 24x7 management of Bank One's global data and network operations. Previous to his twenty years at Bank One, Mr. Detwiler held management positions at Rockwell International, Harris Corporation, and Mohawk Data Sciences. Mr. Detwiler holds a Bachelor of Science in Industrial Management from Franklin University and an MBA from Capital University. His Leader responsibilities include product design, client systems planning, 24x7 reliability, alliances, intellectual capital standards, and overcoming the negative impacts of technology on enterprise culture.

g. Michael J. Greulich, VP of Operations - Michael Greulich is a co-founder of Leader. He is a highly honored former information technology senior executive, programmer and systems integrator in multi-tiered, internationally networked computer systems. Nominated Defense Logistics Agency Employee of the Year in 1989, he was Chief of Systems Integration in consolidating 24 government data processing systems into a single MegaCenter. This system currently processes $86 billion per year in transactions. Mr. Greulich has managed several thousands technology employees at a
time and has overseen the work of information technology companies such as IBM, AT&T, Computer Associates, Compuware, Ampal, Oracle, EDS and SAIC. He is a graduate of Cannon University. His Leader responsibilities include quality assurance, staffing, policies and procedures, project management, project support, resource allocation and research and development support.

h. Benjamin S. Zacks, Vice Chairman & CLO -- Ben Zacks is a co-founder of Leader. He is a business attorney specializing in entrepreneurial law, real estate, intellectual property, company strategy and organization and contract law. His professional associations include the American Bar Association, the Ohio Bar Association, Arizona State Bar Association and the Commercial Finance Association and various other organizations. He holds degrees and honors from The Ohio State University and Capital University Law School. His Leader responsibilities include finance, strategy, securities, negotiations, contracts, employment agreements, copyrights, trademarks, and branding and intellectual property.

i. Karen Houser, Director of Operations -- Karen Houser joined Leader in early 2000. Formerly she was Director of Operations for TW Recreational Services, with full responsibility for ten state park resort hotels in the states of Ohio and New York. Prior to that she spent eight years as Director of Food and Beverage for Yellowstone National Park. In that capacity she managed 17 operations, more than 1,100 employees and budgets exceeding $25 million. She is an expert at budgeting, forecasting, cost control, customer service, human resources and managing employees toward exceeding corporate goals. Her Leader responsibilities include investor relations, investment processing, human resources and all office administration.

j. Steve E. Hanna, Leader Vice President, President of Computer Wizards Consulting LLC, a Leader subsidiary -- Steve Hanna joined the Leader team in the Fall of 2000. Mr. Hanna brings 20 years of experience in the areas of project/program management and systems engineering. Steve has spent the majority of his career supporting classified programs for a number of federal organizations and the Department of Defense. During his 18+ years with Lockheed Martin, Mr. Hanna supported both space and ground programs, developing and implementing key technologies within the United States intelligence community. Steve's background includes design, development, and operational phases of large scale, national and international programs. Prior to joining Leader, Steve helped to establish Oracle's Advanced Programs Group for supporting the National Air Intelligence Agency located at Wright-Patterson AFB, Ohio. His Leader responsibilities include project and operations management.

k. Wayne F. Dugal, Network Architect — Wayne Dugal joined Leader in 1999. Mr. Dugal was a primary architect responsible for design, implementation and management of Qwest's Intelligent Network (IN) and was routinely recognized as one of the top performers in Qwest Network Engineering Department. Prior to Qwest/LCI, Mr. Dugal was a Captain in the U.S. Army Signal Corps where he
designed and implemented telecommunications networks including the Army Forces telecommunications network in Somalia, and was selected to teach electrical engineering at the United State Military Academy. Mr. Dugal holds multiple degrees in electrical engineering from Purdue University and the University of Illinois. His Leader responsibilities include architecture, programming and testing.

l. David Eaton, Database Architect – David Eaton joined Leader in 1999. Mr. Eaton has been chief architect on numerous large-scale Fortune 1000 and government databases and ERP systems. Mr. Eaton’s Leader responsibilities include architecture, programming and testing.

m. William (Bill) DeGenaro, Strategy Advisor – Bill DeGenaro is President of DeGenaro & Associates, a business intelligence services firm. He was the Director of Business Research & Analysis for 3M Company. He also served 3M Company as Director of Innovation Resources and Strategic Planning Director. He served the White House as Director of Strategic Countermeasures Planning under Presidents Reagan and Bush. Mr. DeGenaro is the co-founder and principle of The Centre for Operational Business Intelligence and he is a Fellow and Director of the Society of Competitive Intelligence. He holds a management degree from the University of Illinois and advanced degrees from Harvard University, Columbia University, the Joint Military Intelligence College, and the University of Minnesota. His Leader responsibilities include business intelligence, security and strategic planning.

n. Stephen D. Engle, Manager of Telecommunications Services, CEO of Millennium Worldwide Consulting LLC, a Leader subsidiary

Steve brings a decade of experience in the telecommunications industry. Steve spent seven years with LCI International (now Qwest Communications International). At LCI, Steve worked in Customer Service, Business & Technology Development, Strategic Applications Implementation, Infrastructure Program Management, Product Development, and Engineering Operations. He led the Strategic Applications Implementation and Infrastructure Program Management teams for Qwest; efforts that focused on large-scale development efforts for key customer application, internal platforms and network infrastructure, and back-office integration. Mr. Engle has a Bachelor of Science in Telecommunications from Ohio University. He co-founded Millennium Worldwide Consulting LLC in 1998. Millennium supplies telecommunications and data network professionals on contract and outsourced bases to the high tech industry. Millennium recently became a wholly owned, independently operated Leader subsidiary. His Leader responsibilities include telecommunications architecture and recruiting.

0. Tina M. Giustino, Manager of Human Resources, COO of Millennium Worldwide Consulting LLC, a Leader subsidiary

Tina is a human resources and recruiting specialist and has worked at such companies as Sterling Commerce, The Limited, and Checkfree Corporation. She is experienced with all levels of human resource management from entry-level customer service to HR management and high-tech recruiting. Tina built cutting-edge recruiting and
administrative teams and processes for Sterling Commerce and Checkfree Corporation. Ms. Giustino has a Bachelor of Arts in Human Resources from Ohio University. She co-founded Millennium Worldwide Consulting LLC in 1998. Millennium supplies telecommunications and data network professionals on contract and outsourced bases to the high tech industry. Millennium recently became a wholly owned, independently operated Leader subsidiary. Her Leader responsibilities include recruiting and human resources management.

p. Steven P. Gonzalez, Director -- Mr. Gonzalez was formerly a Sales Vice President for AT&T Global Services in charge of the Eastern Region. He was responsible for leading the data and IP network, sales efforts in the Northeastern United States, including Manhattan and the Financial District. Mr. Gonzalez managed in excess of $4 billion in annual revenues.

q. Leonard Zawistowski, Advisor -- Senior Investigator for the Federal Reserve Bank. His specialty is financial and banking systems and fraud. His Leader responsibilities are focused on financial and banking systems, data security and privacy.

r. Bud Budrejko, Network Architect -- Formerly an Imagery Exploitation Systems Engineer for the National Air Intelligence Center (NAIC) at WPAFB responsible for a variety of system and platforms for NAIC.

s. Mark Astin, Senior Programmer -- Formerly Systems Analysis Officer for the Flight Commander, Information Systems Flight at WPAFB; commanded 62 military and civilian personnel providing base-wide network management and system administration for all aspects of information protection.

t. Eric Rosenberg, Senior Architect -- Former Systems Development Engineer and US Air Force Captain at the National Air Intelligence Center, WPAFB, responsible for customized applications for an internal customer base of 150+ imagery-reconnaissance personnel.

4. Legal Issues

a. Personal Property

All tangible personal property produced or acquired under this BAA shall become the property of the Participant or the Government depending upon whose funds were used to obtain it. Personal Property shall be disposed of as directed by the owner at the owner's expense.

b. Obligations as to Proprietary Information

1. If Proprietary Information is orally disclosed to a Party, it shall be identified as such, orally, at the time of disclosure and confirmed in a written summary thereof,
appropriately marked by the disclosing party, within thirty (30) days as being Proprietary Information.

ii. Each Party agrees to not disclose Proprietary Information provided by another Party to anyone other than the BAA Participant and WPAFB without written approval of the providing Party, except to Government employees who are subject to the statutory provisions against disclosure of confidential information set forth in the Trade Secrets Act (18 USC 1905) and (18 USC 1831 et seq. (1996)).

iii. All Proprietary Information shall be returned to the provider thereof at the conclusion of this BAA at the provider's expense.

iv. All Proprietary Information shall be protected for a period of five (5) years unless and until such Proprietary Information: (1) shall become publicly known without the fault of the recipient, (2) shall come into recipient's possession without breach of any of the obligations set forth herein by the recipient, or (3) shall be independently developed by recipient's employees who did not have access to such Proprietary Information. Nothing herein is intended to be a waiver by the Participant or BAA of the applicability of the Federal Trade Secrets Law (18 USC 1831 et seq.).

c. Obligations as to Protected BAA Information

i. Each Party may designate and so mark as Protected BAA Information, as defined in 4.2 any Generated Information produced by its employees, and with the agreement of the other Party, designate any Generated Information produced by the other Party's employees. All such designated Protected BAA Information shall be appropriately marked.

ii. For a period of three (3) years from the date Protected BAA Information is produced, the Parties agree not to further disclose such Information except:

(a.) as necessary to perform this BAA;

(b.) as provided in Article XI;

(c.) as requested in writing by the Contracting Officer to be provided to other military facilities for use only at those military facilities with the same protection in place;

(d.) to existing or potential licensees, affiliates, customers or suppliers of the Parties in support of commercialization of the technology with the same protection in place. Disclosure of Participant's Protected BAA Information under this subparagraph shall only be done with Participant's consent; or

(e.) as mutually agreed in writing by the Parties in advance.
iii. The obligations of Paragraph b (above) shall end sooner for any Protected BAA Information which shall: (1) become publicly known without fault of either Party, (2) shall come into a Party’s possession without breach by that Party of the obligations of Paragraph b (above), or (3) shall be independently developed by a Party’s employees who did not have access to the Protected BAA Information.

d. Rights in Generated Information

The Parties agree that they shall have no obligations of non-disclosure or limitations on their use of, and the Government shall have unlimited rights in, all Generated Information, all Protected BAA Information after the expiration of the period set forth above and information provided to the Government under this BAA which is not marked as being copyrighted or as Protected BAA Information or Proprietary Information, or which is not an invention disclosure which may later be the subject of a U.S. or foreign patent application.

e. Copyrights

i. The Parties may assert copyright in any of their Generated Information. Assertion of copyright generally means to enforce or give any indication of intent or right to enforce such as by marking or securing Federal registration.

ii. All copyrights of the Participant and BAA to original information for which authorship takes place during the performance of work under this BAA shall be licensed as agreed among the parties, subject to any obligation of protection as delineated herein.

iii. For Generated Information, the Parties acknowledge that the Government has for itself and others acting on its behalf, a royalty-free, non-transferable, non-exclusive, irrevocable, worldwide copyright license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government, all copyrightable works produced in the performance of this BAA, subject to the restrictions this BAA places on publication of Proprietary Information and Protected BAA Information.

iv. BAA and the Participant agree that, with respect to any copyrighted computer software produced in the performance of this BAA, WPAFB has the right, at the end of the period set forth in Article VIII, Paragraph B hereof and at the end of each two-year interval thereafter, to request BAA and the Participant and any assignee or exclusive licensee of the copyrighted software to grant a non-exclusive, partially exclusive, or exclusive license to a responsible applicant upon terms that are reasonable under the circumstances, provided such grant to WPAFB not cause a termination of any licenee’s right to use the copyrighted computer software. If BAA or the Participant or any assignee or exclusive licensee refuses such request, BAA and the Participant agree that WPAFB has the right to grant the license if WPAFB
determines that BAA and the Participant, assignee, or licensee has not made a satisfactory demonstration that it is actively pursuing commercialization of the copyrighted computer software.

Before requiring licensing under the terms above, WPAFB shall furnish to BAA/Participant written notice of its intentions to require BAA/Participant to grant the stated license, and BAA/Participant shall be allowed thirty (30) days (or such longer period as may be authorized by the cognizant WPAFB Contracting Officer for good cause shown in writing by BAA/Participant) after such notice to show cause why the license should not be required to be granted.

v. BAA/Participant shall have the right to appeal the decision by the WPAFB to the grant of the stated license to the Invention Licensing Appeal Board as set forth in Paragraphs (b) - (g) of 10 CFR 781.65, "Appeals".

vi. The Parties agree to place Copyright and other notices, as appropriate for the protection of copyright, in human readable form onto all physical media, and in digitally encoded form in the header of machine readable information recorded on such media such that the notice will appear in human readable form when the digital data are off-loaded or the data are accessed for display or printout.

f. Reporting Subject Inventions

i. The Parties agree to disclose to each other each and every Subject Invention, which may be patentable or otherwise protectable under the Patent Act. The Parties acknowledge that BAA and Participant will disclose their respective Subject Inventions to WPAFB within two (2) months after the inventor first discloses the invention in writing to the person(s) responsible for patent matters of the disclosing Party.

ii. These disclosures should be in sufficiently complete technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose and operation of the Subject Invention. The disclosure shall also identify any known actual or potential statutory bar (i.e., printed publications describing the Subject Invention or the public use or on sale of the Subject Invention in this country). The Parties further agree to disclose to each other any subsequent known actual or potential statutory bar that occurs for a Subject Invention disclosed but for which a patent application has not been filed. All Subject Invention disclosures shall be marked as confidential under 35 USC 205.
g. Title to Subject Inventions

Whereas the Participant and BAA have been granted the right to elect to retain title to Subject Inventions,

i. Each Party shall have the first option to elect to retain title to any Subject Invention made by its employees and said election shall be made: (1) for the Participant within twelve (12) months of disclosure of the Subject Invention to WPAFB, or (2) for BAA within the time period specified in its prime contract for electing to retain title to Subject Inventions. If a Party elects not to retain title to any Subject Invention of its employees, then the other Party shall have the second option to elect to retain title to such Subject Invention. For Subject Inventions conceived or first actually reduced to practice under this BAA which are joint Subject Inventions made by BAA and the Participant, title to such inventions shall be jointly owned by BAA and the Participant. The WPAFB shall retain title to any invention which is not retained by any Party.

ii. The Parties acknowledge that the WPAFB may obtain title to each Subject Invention reported for which a patent application or applications are not filed and for which any issued patents are not maintained by any Party to this BAA.

iii. The Parties acknowledge that the Government retains a non-exclusive, non-transferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States every Subject Invention under this BAA throughout the world.

h. Filing Patent Applications

i. The Parties agree that the Party initially indicated as having an ownership interest in any Subject Inventions (Inventing Party) shall have the first opportunity to file U.S. and foreign patent applications. If the Participant does not file such applications within one (1) year after election, or if BAA does not file such applications within the filing time specified in its prime contract, then the other Party to this BAA exercising an option pursuant to Article XV may file patent applications on such Subject Inventions. If a patent application is filed by the other Party (Filing Party), the inventing Party shall reasonably cooperate and assist the Filing Party, at the Filing Party's expense, in executing a written assignment of the Subject Invention to the Filing Party and in otherwise perfecting the patent application, and the Filing Party shall have the right to control the prosecution of the patent application. The Parties shall agree between themselves as to who will file patent applications on any joint Subject Invention.

ii. The Parties agree that BAA has the right to file patent applications in any country if neither Party desires to file a patent application for any Subject Invention. Notification of such negative intent shall be made in writing to the Contracting Officer within three (3) months of the decision of the non-inventing party to not file a
i. Trademarks

The Parties may seek to obtain Trademark protection on products or services generated under this Agreement in the United States or foreign countries. The Party originating the Trademark/Service Mark on products or services generated under this BAA in the United States or foreign countries shall have the entire right, title, and interest in/to such marks subject to the Government retained rights set forth hereinafter. The Parties hereby acknowledge that the Government shall have the right to indicate on any similar goods or services produced by or for the Government, that such goods or services were derived from and are a WPAFB version of the goods or services protected by such Trademark/Service Mark with the Trademark and the owner thereof being specifically identified. In addition, the Government shall have the right to use such Trademark/Service Mark in print or communications media.

j. Mask Works

The Parties may seek to obtain legal protection for Mask Works fixed in semiconductor products generated under this Agreement as provided by Chapter 9 of Title 17 of the United States Code. Each Party shall have the first option to assert rights to Mask Works made solely by its employees. If a Party elects not to assert rights to a Mask Work made solely by its employees or made in connection with the other Party to this BAA, then the other Party shall have the option to elect to assert rights to such Mask Works. The Parties hereby acknowledge that the Government or others acting on its behalf shall retain a non-exclusive, paid-up, worldwide, irrevocable, non-transferable license to reproduce, import, or distribute the covered semiconductor product by or on behalf of the Government, and to reproduce and use the Mask Work by or on behalf of the Government.

k. Cost of Intellectual Property Protection

Each Party shall be responsible for payment of all costs relating to copyright, Trademark, and Mask Work filing, U.S. and foreign patent application filing and prosecution, and all costs relating to maintenance fees for U.S. and foreign patents hereunder which are solely owned by that Party. Government/WPAFB laboratory funds contributed, as WPAFB's cost share to a BAA cannot be given to Participant for payment of Participant's costs of filing and maintaining patents or filings for Copyrights, Trademarks, and Mask Works.

l. Reports of Intellectual Property Use

Participant agrees to submit, for a period of three (3) years and upon request of WPAFB, a non-proprietary report no more frequently than annually on the efforts to utilize any Intellectual Property arising under this BAA.

5. Budget

The budgetary requirements of this project are largely in technical personnel. It is believed that headcount is the best way to benchmark budget requirements. Therefore, administrative overhead is loaded into the headcount. A fully loaded cost of $125 per programmer per hour, inclusive of all operating costs for that person, has been used for Leader and University of Dayton personnel. A fully loaded cost of $100 per person per hour was used for WPAFB personnel.

The project is divided into two phases. Phase One is the initial 12 month phase in which all R&D will take place and where the R&D expenses will take place. Phase Two is the ensuing 5-year period following the first year. It reflects mostly ongoing licensing costs for the Leader2Leader™ system and hardware replacement after the first three-year period.

See Pages 19-22 for the Budget Spreadsheets.

6. Notices

Any communications required for this BAA, shall use the following addresses, telephone numbers and fax numbers as follows:

**LEADER TECHNOLOGIES LLC**
Attn: Michael T. McKibben
921 Eastwind Drive, Suite 118
Westerville, Ohio 43081
Tel: (614) 890-1986
Fax: (614) 864-7922
mmckibben@leader.com

**UNIVERSITY OF DAYTON RESEARCH INSTITUTE**
Attn: Clancy M. Cross
UDRI Web Development Center
Tel: (937) 229-3273
Fax: (937) 229-3433 (fax)
cross@udri.udayton.edu
SECTION 5

Basis of Cost and Administrative Information

1 Basis of Cost

Documentation of the information contained in this proposal and basis of cost may be obtained for the Controller’s Office of Leader Technologies. Information regarding each cost element is provided in the following paragraphs:

a) Employee Hours

i) The hours proposed for each employee is identified by headcount. The individual employees required to perform the effort in this proposal are identified in various section of the proposal. Due to the requirements of the technical work, the project team is identified by headcount rather than specific hours on specific programming tasks, all based on a 40-hour week for each employee.

ii) The hours for each phase of the project are projected according to the total number of programming hours by all members of the programming team needed to complete the task. The number of hours needed to develop each LeaderCube™ module is an engineering estimate of 1,000 hours per module.

iii) The headcount (times 40 hours per head per month) will yield the total number of hours specified in this proposal.

b) Salary and Wage Rates

For Leader and UDRI, an hourly rate of $89.29 per hour per employee was applied to this costing. An overhead load of 40% was then applied. The overhead load accounts for prorated general and administrative expenses, including employee benefits. This hourly rate is based on comparable industry rates paid for employees of the caliber employed by Leader. For employees of WPAFB, an hourly rate of $71.43 per hour per employee was applied to this costing with an overhead load of 40% as described above. The rates include normal merit increases, vacation, paid holiday, and emergency leave pool. The pool account is credited an appropriate amount for each hour of effort charged to the project. No overtime premiums or shift differential rates are included or anticipated for this project.

c) Employee Benefits

Each hour of effort charged to the project is assessed a factor (included in the 40% overhead load) for hospitalization insurance, life insurance, Workmen’s Compensation Insurance, pension plan, FICA, etc. Leader applies a standard rate
for its employees. UDRI applies a standard rate to non-student employees and a student rate to graduate and undergraduate student employees.

The following are rates paid by Leader Technologies (and included in the 40% overhead load):

- **FY01** Social Security/Medicare 6.6%
- Federal Unemployment 0.8%
- Ohio Unemployment 2.7%
- Worker’s Compensation 0.5733-0.7466%
- Health Insurance 8.5%
- Dental Insurance 1.0%
- PTO/Holidays 11.5%

**d) Materials and Services**

The following is a description of the budget line items:

1. Leader – Cube Dev. Comprised solely of programmer hours and is fully reflected in the headcount requirement.
2. UD – Cube Dev. Comprised solely of technical staff time and is fully reflected in the headcount requirement.
3. WPAFB – Platform expenses. Includes hardware, bandwidth, facilities and support personnel costs.
4. NORAD-like Anti-terrorism Theater. Includes hardware, facilities and bandwidth provisioning.
5. Leader2Leader™ licenses. Software platform licenses.

- These costs are engineering estimates of items required to perform the project.
- These costs are estimates of items required for the project. Each estimate is based on the following:

1. Quotations from vendors of specific items
2. Past experience based on actual costs involved with the current platform
3. When quotations or recent past experience are not available, the costs are based on engineering experience on similar contracts.

**e) Communications**

Communications costs (included in the 40% overhead load to the headcount) consist of long distance telephone, high speed Internet connectivity (e.g., T1, DS3, DSL, dial-up) teleconferencing, telefax, shipping and express delivery charges.

---

1 Dependent on the inside/outside classification.
f) Travel

i) Travel costs (included in the 40% overhead load to the headcount) consist of the number of trips based upon Leader's and UDRI's experience with work of a similar nature. The cost will entails mostly automobile trips between Columbus and Dayton and occasional coach airline trips to Washington DC and government facilities as needed. Leader and UDRI personnel travel on a per diem basis and stay in mid-priced lodging facilities. The miscellaneous travel costing includes airport parking or taxi service. Local mileage is charged at standard rates for similar corporate expense. These costs are in accordance with Leader and URDI travel policy and OMB Circular no. A-21.

ii) The estimate for the number of trips is based on Leader's and UDRI's experience on similar projects. Presently the destinations of the various trips are not known. Thus, an average air fare of approximately $400 per trip is used in the overhead load. When actual trips are made, coach air fares or discounted fares, when available, between Columbus, Dayton and Washington DC will be charged. Ground transportation and a per diem rate based on the Joint Travel Regulations are included in the cost for travel. A miscellaneous cost is included for airport parking or taxi services to the airport. Local mileage is charged at a corporate standard rate. These costs are in accordance with Leader and URDI travel policy and OMB Circular no. A-21.

g) Subcontract Effort

i) Leader employs several subcontractors on a somewhat permanent basis. These are people with specific niche talents that are independent consultants by choice, yet are holders of Leader equity.

ii) Subcontracting costs are based upon verbal quotations, engineering estimates, or past experience.

iii) Subcontracting costs are included in the headcount costings. Leader subcontractors are treated as Leader employees in all aspects with respect to calculating engineering hours, costs and overhead.

h) Equipment

Equipment costs are based on catalog prices, vendor quotations, or engineering estimates.

i) Rental Costs

No rental costs are anticipated, but if they are needed will be based upon vendor quotations.
j) Indirect Cost

This proposal presents a FIXED RATE (Overhead Load of forty percent [40%]) incorporating all DIRECT and INDIRECT costs and applied to the headcount. No Overhead Load costs are applied to non-headcount costings.

2) Administrative Information Regarding This Proposal

The following paragraphs include administrative information regarding this cost proposal.

a) Type of Contract

It is proposed that the contract to be utilized in the event that this proposal is accepted will be a firm-fixed type.

b) Payment

If a contract should result from this proposal, monthly invoices will be submitted for payment. Payment terms are net 30 days.

c) Royalties

It is not anticipated that there will be any payments to others as royalties for use of inventions.

d) Taxes

The estimated costs embodied in this proposal include normal Federal, State and Local sales, use and other taxes as appropriate. UDRI has exempt tax status for certain purchases.

e) New Employees

If a contract results from this proposal, Leader has enough current employees to execute the work. UDRI will hire new employees to execute their work under this contract.

f) Quality Management System

Leader personnel are experienced in various quality management programs including Malcolm Baldrige, ISO 9x, Business Process Re-engineering, Balanced Scorecard, Vital Signs, Management by Objectives, etc. In fact, a current Leader member is a Malcolm Baldrige Award Examiner. The Leader2Leader™ product itself will become an infrastructure facilitator for these various programs. Mr. McKibbon has been a leader in the organizational...
development world since the early 1980’s. Leader’s quality practices, therefore, employ the best of the best of the aforementioned quality programs to ensure that its quality standards and those of its customers are met.

UDRI has implemented a quality management system based on ISO 9001-1994. In accordance with its quality management system, UDRI has instituted a quality planning process for all programs to ensure that customer requirements are met.

g) Period of Validity of Proposal

This proposal is valid for a period of 90 days from the date of submission, after which time certain terms may have to be adjusted to reflect more current information and circumstances at that time.

2) Administrative Information

a) Regarding Leader Technologies LLC

Business Classification

Leader Technologies is a Limited Liability Company organized under the laws of the State of Ohio. The company is in the process of converting to a Delaware C Class Corporation. It currently employs 20 people full time and 4 part time. Leader is a small business.

b) Regarding the University of Dayton

Business Classification

The University of Dayton employs more than 500 people, and is thus a large business. The University is not a socially or economically disadvantaged business and is not a Historically Black College or University Minority Institution; it is not a woman-owned business. The University is located in a labor surplus area.

c) Business Information

LEADER TECHNOLOGIES LLC

Attn: Michael T. McKibben
921 Eastwind Drive, Suite 118
Westerville, Ohio 43081
Tel: (614) 890-1986
Fax: (614) 864-7922
mckibben@leader.com
d) CAGE Codes, DUNS Number and Tax Identification Number

The Commercial and Government Entity (CAGE) code assigned to the University of Dayton is 50280 and the University’s Data Universal Numbering System (DUNS) number is 073134025. The University’s Tax Identification Number is 31-0536715N.

Leader Technologies’ Tax Identification Number is 31-1562602. Leader’s DUNS number is 799546155 and Leader’s CAGE code has been applied for. Leader’s SIC classification is 7371; PSC classification is D308; and, NAIC classification is 541511.

e) Financial Capability

The University of Dayton possesses the financial resources to provide the necessary operating capital for the proposed project. Leader Technologies is a development stage company founded in 1997 that is bringing its first commercially available product to market currently and would engage in this project only if financial resources provided by BAA for this project.

The latest audited financial report of the University of Dayton is on file with the Defense Contract Audit Agency. Detailed financial information can be acquired from Claudette M. Groeber, Contracts and Grants Administrator, University of Dayton Research Institute, 300 College Park, Dayton, Ohio 45469-0104. The latest KPMG LLP audited financial report of Leader Technologies is on file at the Leader headquarters and can be acquired from Gloria Schumann CPA, Controller, Leader Technologies.

f) Cognizant Administrative Contracting Office

c/o Professor James P. Chandler
The Chandler Law Firm Chartered
1815 Pennsylvania Avenue, Suite 300
Washington DC 20006
(202) 842-4800 Voice
(202) 296-4098 Fax
chandler@mpl.org
g) Cognizant Auditor

c/o Professor James P. Chandler
The Chandler Law Firm Chartered
1815 Pennsylvania Avenue, Suite 300
Washington DC 20006
(202) 842-4800 Voice
(202) 296-4098 Fax
chandler@nipli.org

In February 1996 the Department of Defense designated the University of Dayton as a low risk institution. The Defense Contract Audit Agency (DCAA) no longer routinely performs audits at the University. The University's A-133 audit is performed annually by its internal and external auditor and provided to the Office of Naval Research (ONR) for review. Leader Technologies has been audited by the accounting firm KPMG in 1998, 1999, and 2000. If a DCAA audit is desired, both the University of Dayton and Leader Technologies will certainly oblige.

b) Persons Authorized to Negotiate

Michael T. McKibben
Chief Executive Officer
Leader Technologies
921 Eastwind Drive, Suite 118
Westerville, Ohio 43081
Tel: (614) 890-1986
Fax: (614) 864-7922
mmckibben@leader.com

Professor James P. Chandler
The Chandler Law Firm Chartered
1815 Pennsylvania Avenue, Suite 300
Washington DC 20006
(202) 842-4800 Voice
(202) 296-4098 Fax
chandler@nipli.org
Authorized Representatives

Michael T. McKibben
Chief Executive Officer
Leader Technologies
921 Eastwind Drive, Suite 118
Westerville, Ohio 43081
Tel: (614) 890-1986
Fax: (614) 864-7922
mckibben@leader.com
Appendix A

WPAFB Cost Displacement Analyses

Mr. Fleser at WPAFB requested a Leader2Leader™ cost displacement analysis. Specifically, he wished to see an analysis of the range of existing WPAFB operational costs that would be displaced, replaced, reduced or eliminated completely by a full Leader2Leader™ implementation. By way of summary, an analysis of the tangible cost displacements alone (using drastically conservative estimates) yielded an accumulated net savings of $266,452,266, a 513% ROI over the six year term of the BAA, Phases 1 and 2. If one were to add more aggressive cost displacement figures and improved performance impacts from the intangible values (i.e., better focus on the mission, improved leadership communications, better inter-agency coordination, etc.) the ROI could have easily been 1,000-2,000%.

Table 2: WPAFB Cost Displacements Analyses

<table>
<thead>
<tr>
<th>Cost Displacement</th>
<th>200 machines</th>
<th>$1,000/ Machine</th>
<th>200,000</th>
<th>200,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer Fax Machines (displaced by LeaderFax™)</td>
<td>200</td>
<td>$1,000</td>
<td>200,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Fewer paper-based Assessments, Evaluation &amp; Survey Instruments (replaced by LeaderVote™)</td>
<td>200</td>
<td>$30/ User/Year</td>
<td>600,000</td>
<td>600,000</td>
</tr>
<tr>
<td>Fewer Directory Management Resources needed and reduced errors and omissions in employee-related datakeeping (displaced by LeaderMyProfile™)</td>
<td>200</td>
<td>$110/ User/Year</td>
<td>2,200,000</td>
<td>2,200,000</td>
</tr>
<tr>
<td>Savings of Wasted Time in Meetings from poor documentation, preparation, background and source material distribution, reviewing minutes, etc. (reduced by LeaderMeeting™)</td>
<td>200</td>
<td>0.25 hours/week/user</td>
<td>10,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Savings by not having to recover from MS Outlook Targeted Viruses (eliminated by LeaderMail™)</td>
<td>200</td>
<td>$20/ User/Year</td>
<td>400,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Description</td>
<td>Users</td>
<td>Rate/Year</td>
<td>2006</td>
<td>2007</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-------</td>
<td>-----------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Savings from Non-proliferation of E-mail Attachments in distribution lists</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(replaced by LeaderNet™ - loss storage)</td>
<td>20,000</td>
<td>$281,875</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings in Phone Conferencing costs (replaced by LeaderPhone™ and LeaderMeet®)</td>
<td>20,000</td>
<td></td>
<td>$2,250,000</td>
<td></td>
</tr>
<tr>
<td>Savings in Travel Time costs (replaced by the virtual meeting capacity of LeaderPhone™ and LeaderMeeting™)</td>
<td>20,000</td>
<td></td>
<td></td>
<td>12,800,000</td>
</tr>
<tr>
<td>(replaces travel spent in mornrail and solo searches by LeaderFind®)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings by reducing the time now spent Scanning and Deleting Superfluous Email (reduced with LeaderMail™)</td>
<td>20,000</td>
<td></td>
<td>8,598,333</td>
<td></td>
</tr>
<tr>
<td>(reduced by LeaderMail™)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings by reducing the time now spent in Superfluous Browsing (reduced by LeaderFind®)</td>
<td>20,000</td>
<td></td>
<td>5,025,000</td>
<td></td>
</tr>
<tr>
<td>Reduce Exchange Server Licensing Costs in migration from Exchange Mail to LeaderMail™</td>
<td>20,000</td>
<td>$50/user</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced costs for MS Project (reduced by LeaderTask™)</td>
<td>4,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings and efficiencies in Organizational Restructuring Costs and relocation of intellectual capital (facilitated by Digital Leaderboards™ and LeaderWorks™)</td>
<td>2,000 managers</td>
<td></td>
<td>320,000</td>
<td></td>
</tr>
<tr>
<td>Reduce Client-side Software Maintenance (because Leader/Leader™ is simple client-based)</td>
<td>20,000</td>
<td></td>
<td>800,000</td>
<td></td>
</tr>
<tr>
<td>Reduced costs due to Thin Client Configuration (maintenance, support, upgrades, lower hardware costs, supports handheld devices, network computers, eliminates need for software distribution, time savings dealing with end user - the seven-critical LeaderAppliance™ does all the heavy work)</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Users</td>
<td></td>
<td></td>
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<tr>
<td>----------------------------------------------------------------------------</td>
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<td></td>
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<tr>
<td>Reduced costs associated with the system’s real-time support of Management</td>
<td>20,000</td>
<td></td>
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<tr>
<td>Priorities and Initiatives (facilitated by Digital Leaderboards™ and</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LeaderWoes™)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise, Directorate, Group &amp; Individual Productivity Gains associated</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>with system’s support of enterprise’s strategic priorities (facilitated</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>by LeaderWoes™)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Reduced dependence on MS Office Suite &amp; Application packages: vendor</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>independence allows us to support all major office suites (e.g. Sun</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>StarOffice, Corel Office Suite, Lotus SmartSuite)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Reduced costs for transfer of knowledge i.e. Training Replacement</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel, Lost Opportunity Costs, Knowledge Management Losses, and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Training Costs due to fragility accessibility of Leaderboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>information (facilitated by Digital Leaderboards™ and LeaderWoes™)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced costs and increased customer service due to availability of local</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ohio support via the Leader team and University of Dayton personnel)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Improved future system spending decision: Support due to the knowledge</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>based on the Leader and University of Dayton</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Costs Displaced (in $)</th>
<th>53,275,208</th>
<th>53,715,208</th>
<th>53,766,208</th>
<th>53,995,208</th>
<th>54,436,208</th>
<th>53,275,208</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Savings ($)</td>
<td>44,200,713</td>
<td>45,020,208</td>
<td>45,060,208</td>
<td>44,650,716</td>
<td>45,740,208</td>
<td>44,580,208</td>
</tr>
<tr>
<td>ROI</td>
<td>341%</td>
<td>515%</td>
<td>515%</td>
<td>489%</td>
<td>526%</td>
<td>515%</td>
</tr>
<tr>
<td>Cumulative Net Savings ($)</td>
<td>200,713</td>
<td>86,200,922</td>
<td>131,581,120</td>
<td>176,131,846</td>
<td>221,672,055</td>
<td>286,482,083</td>
</tr>
</tbody>
</table>
Appendix A, continued

Spreadsheet Comments:

Costs Spreadsheet Comments

**Leader2Leader™ licenses** -- Cost covers support, normal upgrades, new versions (but, not WPAFB requested enhancements that are over and above normal customer requests.)

**Hardware platform & support** -- Covered for the first three years by the BAAN financing; to be picked up by WPAFB in years 4-6.

**Development environment** -- A mirror of the WPAFB configuration for a Leader development and testing environment.

**Internal Bandwith** -- inside the WPAFB intranet.

**External Bandwidth** -- links to all external networks.

**Facilities Management** -- WPAFB provisioning of fully loaded data center costs incl. UPS, physical security, management, HVAC, etc.

**LeaderCube™ Development** -- design and development of 6 ties between Leader2Leader™ and existing WPAFB data silos; one cube known is for LiveLink by OpenText.

**LeaderCube™ Documentation, Training & Help** -- Written and online documentation, training media development and implementation.

**LeaderCube™ Performance Testing** -- Initial capacity and performance evaluation; bottleneck elimination; final configuration refinement; storage/archiving policies.

**LeaderCube™ Systems Integration** -- Assist in the design of the integration approach; testing of the integrated system; implementation, installation of the integrated system.

**WPAFB Metrics Studies** -- performance and usage studies to evaluate true costs of ownership and use as well as numerous collaboration statistics that correlate system usage with strategic objectives fulfillment.
Fax Machines – 50% fewer fax machines needed because incoming faxes will go right to appropriate Digital Leaderboards™. Assume a fully loaded cost over the life of the machine, incl. maintenance at $1000. (displaced by LeaderFax™)

Assessments, Evaluations & Survey Instruments – LeaderVote™ automated way of producing and distributing survey (e.g., skills testing, inventories, instruments, evaluation, new product focus groups, needs assessments, opinion surveys, voting) will eliminate at least $30 per user per year in production, printing, distribution, compilation, and licensing of formal and ad hoc survey instruments. (replaced by LeaderVote™)

Directory Management Resources -- $110 per year per user (industry number) in savings over current methods for entering, tracking, updating and deleting enterprise master records on each employee. (displaced by LeaderMyProfile™)

Wasted Time in Meetings – Used a high conservative number of 15 min. per user per week saved re. poor documentation, preparation, background and source material distribution, reviewing minutes, etc. (reduced by LeaderMeeting™ and LeaderPhone™)

MS Outlook Targeted Viruses – MS Outlook viruses are impotent in LeaderMail™ and therefore the enterprise can conservatively save $20 per user per year in costs now incurred.

Non-proliferation of E-mail Attachments – Save 10MB per user per day at a cost savings of $6.56 per GB in spinning disk storage.

Phone Conferencing – Conservatively assumed that only 10% of the user community would even use the LeaderPhone™ service and that they would make 4 calls per week at an average of 30 minutes per call with 7 people on the call at a savings over current costs of $2.25 per minute per leg.

Travel Time – Conservatively used 16 hours a year as the savings per user gained from use of LeaderPhone™ and LeaderMeeting™. We’re using a $40/hour time cost

Document Searching & Finding – Conservatively used 15 minutes per user per week as the amount of time saved not having to search for documents, files, faxes, voice mails, Emails, etc. We’re using a $40/hour time cost

Scanning & Deleting Superfluous Email – Conservatively estimated that each user spends 0.43 hours per week scanning and deleting 50 superfluous messages a day. Then, we reduced that savings by 50%. We’re using a $40/hour time cost. (The number here is likely factors higher than we are using according to recent Gartner Group studies.) (replaced with LeaderMail™)
Superfluous Browsing -- Conservatively used an estimate of 1.5 min. per week per user as the amount of time users currently waste in superfluous "research" because they don't have better access to internal documents that answer those questions. According to many studies, this estimate is low.

Exchange Server Licensing Costs -- Estimated these cost can be reduced by $50 per seat as user migrate to LeaderMail™. Assumed a 20% migration per year starting in the second year with that migration going no higher than 80%.

MS Project Licensing Costs -- Estimated these cost can be reduced by $50 per seat as user migrate to LeaderTask™. Assumed a 20% migration per year starting in the second year with that migration going no higher than 80%.

Organizational Restructuring -- Very conservatively estimated that each manager would save 4 hours per year in time now spent pondering over restructuring plans and how to implement those change technologically. This number is likely very low. We're using a $40/hour time cost.

Client-side Software -- the Leader2Leader™ simple browser client configuration saves a whole host of maintenance and support costs. These benefits for WPAPB cannot yet be determined.

Thin Client Configuration -- Leader2Leader™ implements all the benefits of a "thin client" or "network computer" architecture with all its associated benefits. These benefits for WPAPB cannot yet be determined.

Management Priorities & Initiatives -- Leader2Leader™ keeps management priorities in front of all users at all times creating untold benefits relative to clear vision, goals, objectives and responsibilities. These benefits for WPAPB cannot yet be determined.

Enterprise, Directorate, Group and Individual Productivity Gains -- Strategy industry studies point to dramatic gains that can occur when an enterprise is able to clearly focus on its goals and its infrastructure supports that focus. 15-50% jumps in productivity gains have been observed. These benefits for WPAPB cannot yet be determined.

MS Office Suite & Application -- The Leader2Leader™ environment is platform vendor neutral. It will run on and support all of the major operating systems and office suite environments. This means an enterprise can drastically reduce its dependence on Microsoft products without losing functionality. These benefits for WPAPB cannot yet be determined.

Availability of Ohio Support -- Leader is headquartered in Columbus, Ohio with 5 high-level developers working in the Dayton area. This means Leader, along with the
University of Dayton personnel involved with this project can give highly personalized and responsive attention to this project. These benefits for WPAFB cannot yet be determined.

Spending Decision Support – As this project proceeds along iterative design and decision pathways, WPAFB will have a highly-experience Think Tank of players between Leader and the University of Dayton that will be available. These benefits for WPAFB cannot yet be determined.
Appendix B

Personnel Resumes

1 Michael T. McKibben, B.Sc.C.E.
2 Brad Whiteman
3 Jeff Lamb
4 Professor James P. Chandler
5 Edward B. Detwiler
6 Bud Budrejko
7 Mark Astin
8 Steve Hanna
9 Eric M. Rosenberg
10 Steve Engle
11 David Eaton
12 Michael J. Greulich
13 Major General James E. Freeze, US Army (ret.)
14 William DeGenaro
15 Bill Robertson
16 Betsy Foote
17 Wendy Y. Adams
18 Clancy W. Cross
19 Ronald L. Thomas
20 University of Dayton Research Institute (UDRI)
Appendix C
Existing “Silo” Intelligence Systems

![Diagram of existing intelligence infrastructure information flow]

Figure 6: Existing “Silo” Intelligence Systems

Appendix D
NORAD-like Big Board Theater for Anti-terrorism Command and Control

Illustration of the Leader2Leader™ platform used in tandem with existing data repositories. This proposal deals with the installation of the Leader2Leader™ platform across WPAFB organizations. In addition, subsequent to September 11, 2001, NORAD-like theater displays of this system can be prototyped well within the context of the needs this proposal will be fulfilling at WPAFB. This illustration shows how the WPAFB platform envisions in this proposal can be used to feed a NORAD-like display theater for use as an analyst’s war room.

See the page following.
Appendix D, continued
Figure 7: NORAD-like Big Board Theater for Anti-terrorism Command and Control

NORAD-like Big Board Theater
Anti-terrorism Control Central Panel A
(Northeast Sector)
Anti-terrorism Control Central Panel B
(Central Sector)

Third-party WPAFB & -INT Repositories
WPAFB Specifications met by DARPA funding
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