Web Application Development
Bidder Response

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Introduction

The following document outlines **Global Intelligence Technology's** response to the Digital Library Federation Request for Proposal to develop and implement a new website to manage communication with DLF members and working group participants.

Company Profile

Company Description

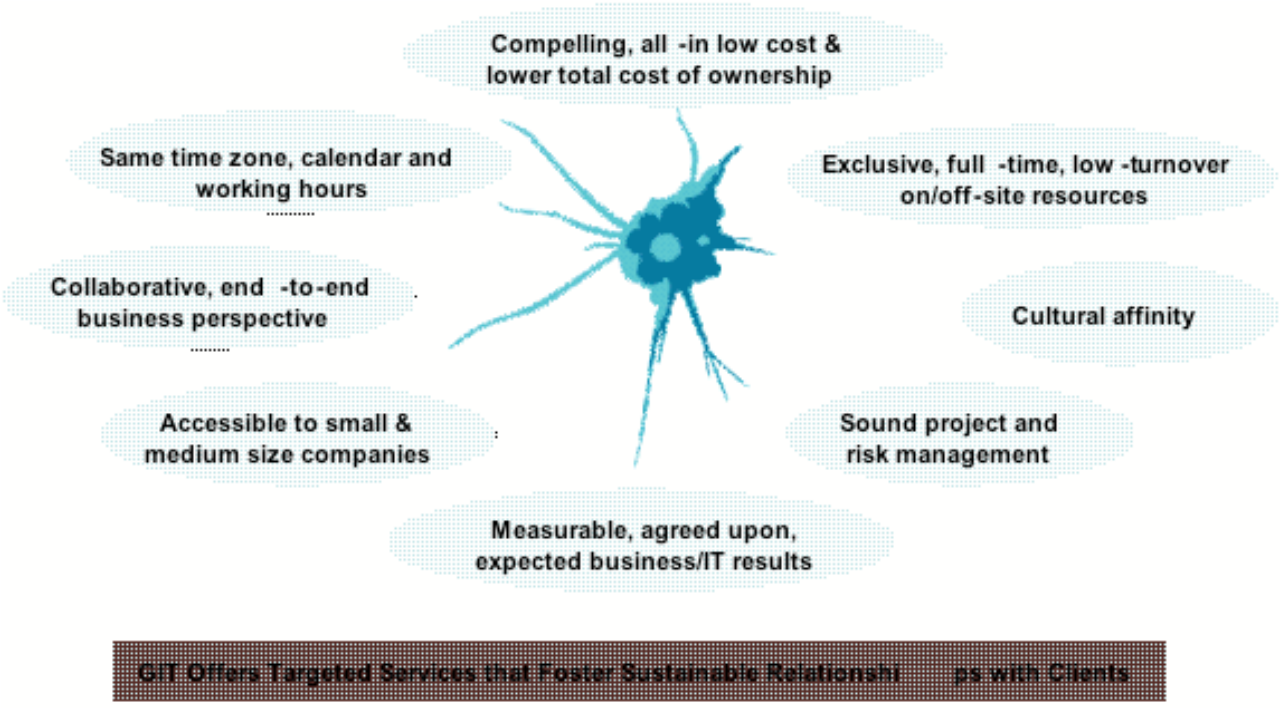
- Incorporated in March of 2003 in Massachusetts, **Global Intelligence Technology** was organized to provide US clients with cost-effective, collaborative, and accessible IT Services in long term relationships
    - Web Application Development
    - Quality Assurance (UAT) Testing
    - Legacy Application Development and Conversions
    - Project Management

- GIT utilizes the recruitment engine and facilities of their partner, G&L Argentina, an IT Services company that has been in business more than 17 years and has more than 500 employees.

- GIT emphasizes communication/collaboration/interaction while taking advantage of the favorable time zone to adhere to US client office hours and holiday schedules.

- The GIT target market centers on small and medium size companies or self contained IT or business initiatives in large companies.

GIT Value Proposition



GIT Services

- **Web Application Development/Sustaining Engineering** – Whether conducted at the client site or at our development centers, GIT taps a pool of over 400 software developers who can carry entire projects (fixed price) or simply augment the client's staff (ongoing base team). Our scalable resource model permits us to deliver projects at the lowest possible cost to customers.

- **Quality Assurance (UAT) Testing** – GIT has experience in both black and white box testing and works with clients to determine the appropriate test strategy for their needs.

- **Legacy System Development and Conversions** – GIT has extensive experience in the Development/ Sustained Engineering of traditional mainframe business applications and databases as well as the conversions and migrations of legacy applications to state of the art architectures.

- **IT Project Management/Governance** – Utilizing our proven methodologies and tapping our very experienced management team, GIT provides governance of the entire business/technology project. Our Systems Development Life Cycle (SDLC) enables customization and collaboration on complex initiatives. CMM-I rated and PMI certified, project managers are experienced in delivering projects using a blend of onshore and offshore resources.

Relevant Work Experience

Selected, Recent GIT Projects

Client	Project	Business Challenge	Enabling Technology
Hospital Administration Software Provider	Web Development / Sustained Engineering	The maker of hospital administration software wants to offload their sustained engineering to free up their developers for new releases. They want to count on a group specializing in Sustained Engineering for their Web-based product. The product was developed in using SQL Server Stored Procedures and a JAVA user interface.	J2EE C++ JSP Citrix SQL Server Browser Based Client
Web Development Consultants	Web Development	To provide our client with off-site Web Development for their clients. The client periodically makes enhancements to the Web-based applications and executes new releases of the applications. Our client wants to off-load their internal development team by partnering with GIT.	PHP MySQL PERL
Document Storage Leader	Provide QA Services	To provide our client with off-site testing of their digital services application. These tools provide their customers with the ability to control the storage of assets. The client periodically makes enhancements to the Web-based tools and executes new releases of the tool. The client wants to off-load the QA Testing from the current staff.	Windows NT, 2000, XP Explorer 5.5, 6.0, 6.1 Tracker Test Director TOAD VM-Ware
Provider for	Insurance	Develop a new Insurance Portal for federal	AS/400

US Office of Personnel Management	Portal Utilizing Offshore Resources	employees. The US Federal Office of Personnel Management (OPM), the end user, requested the development of a portal for federal employees to enroll in a dental/ vision insurance program as well as the development of all back end processes.	AS/400 COBOL AS/400 CL JAVA MS Project
Provider for US Office of Personnel Management	Infrastructure Re-platform Utilizing Offshore Resources	Convert the client's Long Term Care Insurance systems from a hosted main frame system to an AS/400, in-house, based system. The US Federal Office of Personnel Management (OPM), the end user, required an invisible conversion with no impact to the federal employee end users.	AS/400 AS/400 COBOL AS/400 CL MS Project
Facility Management Software Provider	Sustained Engineering	The maker of asset/facility management software wants to offload their sustained engineering to free up their developers for new releases. They want to count on a group specializing in Sustained Engineering for their Web-base product. This product was developed in using SQL Server Stored Procedures and a JAVA Front .	J2EE C++ JSP Web Logic Application Server SQL Server Browser Based Client

Recent Project Website URLs

Select US Based Clients

http://careone.redirectme.net
http://dowusa.redirectme.net
http://healthbridge.redirectme.net
www.wga.org
www.benefeds.com

Select South American Based Clients

http://www.macrileeventos.com.ar/
www.plasticosbostico.com.ar
http://www.mega983santafe.com
www.marcelogimenezturismo.com
http://www.hdrwalls.com

Key Personnel and Organizational Resources

The following GIT leaders will be directly involved in the management of the initiative:

ROBERT MORGAN
Founder and COO

Robert Morgan is a Special Projects Executive with 20+ years of extensive experience in project management, technology analysis/design, and education in financial services and consulting industries. He has demonstrated expertise in planning and control, development life cycles, analysis techniques, and curriculum development in his career, which started with Arthur D. Little. At BankBoston, Bob developed BKB's standard project life cycle, their project management curriculum, and co-managed their millennium project for Latin America. BKB assigned Bob to be the technology liaison for Latin America and to assist integration and conversion projects from Buenos Aires. After relocating back to the US, Bob lead the successful effort to elevate Fleet's CMM rating for the Technology Division and to manage the infrastructure setup for Fleet's offshore development program.

CARLOS D'ELIA
Founder and CEO

Carlos D'Elia is an executive with 20+ years of proven success in the Financial Services industry, managing global cross-company strategic business and technology projects as well as Operations and Information Technology organizations. His end-to-end mindset and business knowledge has enabled to him to develop the strategies and execute the delivery of information technology-based projects related to Retail, Small Business and Wholesale products and services, business processes and distribution channels. At Bank Boston Argentina Carlos ran all strategic positions in Ops & Tech. BKB Argentina assigned Carlos to do the planning, make the vendor selection, and develop the business cases and obtain H.O. approval for new distributions channels, operations and technology architectures. In 1999, BKB assigned Carlos to conduct the Southern-Cone Y2K Project. Carlos later transferred to the business line where he ran the Retail Internet Banking business. The last assignment in BKB Argentina was the development of Argentina Business Internet Strategy. In January 2003 he founded GIT (Global Intelligence Technology).

ROLANDO DOVAL
Technology Director, GIT

Rolando Doval is a Technology Executive with 20+ years of experience in project and technology management. He has proven expertise as a Projects Director and a Strategy Consultant, advising national and international companies in Technical/Strategic aspects as well as Business ones. During his extensive career at Bank Boston Argentina he was responsible for the Technology used in banking branches of Uruguay, Chile, Peru, Colombia and Panama, participated in the Bank's key projects, and managed a yearly budget of 40 million dollars. He has also led the first two developments made on the Internet: "Boston Access" and "Portal PYME" and managed the Banks's largest performance analysis project life for the merging with Deutsche Bank. Rolando later proved successful as an Independent Consultant to various industry companies for project development. At G&L Group, he was responsible for Technology Strategy planning projects at government and private levels, national and international, including BankBoston of Chile, Ibercaja- Spain, Buenos Aires Province Government, Universidad Complutense of Madrid, Robotiker of Spain. He has presented at Conferences sponsored by leading technology companies and published several articles in specialized magazines. In 2000, he was selected by IT MANAGER magazine as one of the best 25 IT Managers in Latin America in 1999.

PETER HORN
Design, Marketing Director, GIT

Pete Horn, a Manager of Marketing Communications with 30+ years of experience and a strong background in creative design and production, is able to fulfill innovative strategies to improve the look and feel of any corporation. He has extensive experience in developing visually appealing, intuitive collaterals/websites. His comprehensive approach to building the user experience relies on extensive research and the utilization of prototyping to ensure client acceptance. Pete is also an accomplished photographer, which facilitates a unified vision to the design.

Project Approach/Response to Requirements

Objectives

DLF requires to simplify the process, to obtain all the information needed in a more natural and intuitive operation with performance optimization.
Consequently, the main objective of the service will consist in developing DLF website in a way as efficient, complete and accurate as possible covering the needed use cases to achieve the mission of the institution.

Benefits

- Easier operation
- Easier scalability
- Possibility of making fast and reliable operations
- More security for data
- Easier system and information maintenance
- Appealing Design
- Better use of screen & sidebar
- Content management
- Easier content updates
- Compatibility with IE, FF, Safari using CSS style sheets
- Appropriate use of web standards (CSS, XSLT)
- Dynamic structure
- MVC Model-view-controller architecture
- Easy to maintain
- Categorized users
- Easier and faster DLF Forum management
- Easier management and reception of general opinions from across DLF
- Blog aggregation
- Open Source technology
- URL bookmarking
- Content available to web spiders such as Google
- Skinning
- W3 accessibility standards
- Use of GoogleID or OpenID for user management
- Live information feeds on the website, increasing the website stickiness
- XML and RSS News feed technologies
- Friendly and intuitive steps to get information, subscriptions and logistics
- Organized site

Functionality

Requirements

	NON-FUNCTIONAL REQUIREMENTS	*Priority*
0.1.	The site shall be developed using open source technology.	H
0.2.	Any development and documentation done for this site shall be made available to the whole community under a standard open source license.	H
0.3.	***GIT*** won't offer web hosting services.	H
0.4.	***GIT*** won't describe the hosting solution that will accommodate a load greater than that of the current site.	H
0.4.1.	The website shall have room for at least 30,000 files weighing in at 2GB, but estimated to grow at a rate of roughly 1GB (15,000 files) per year for the next five years.	H
0.4.2.	The website shall handle at least 75,000 sessions generating about 300,000 page views per month.	H
0.4.3.	The website shall be able to transfer at least 25GB per month.	H
0.5.	Offer ongoing technical support to DLF, although DLF is free to obtain these services from any other provider.	H
0.6.	The new site shall be able to co-exist with a frozen version of the existing site to facilitate the resolution of existing references.	H
0.7.	The site shall be backed up at least daily and files from backups shall be available to DLF staff as needed.	H
0.8.	The site shall be designed to resist attacks on the server, such as cross site scripting, SQL injection, and URL poisoning.	H
1.1.1.	The site shall make use of industry standards such as CSS and shall be viewable with full features on all modern browsers including Firefox 2, Safari 3, and IE7.	H
1.1.2.	DLF staff shall have access to the “skin” of the site and authority to edit that skin as needed.	H
1.1.3.	The site shall be able to generate site maps, page metadata, and other search engine optimizations automatically.	H
1.8.1.	Wiki pages shall keep a history of changes made and be able to roll back to prior versions.	H
3.1.1.	It shall be possible for users to register themselves on the DLF site.	H
3.1.2.	It shall be possible for users to register for the DLF site with an OpenID. [low priority]	L
3.5.	Designated administrators of group areas shall have the authority to assign users to their own groups. [low priority]	L
4.2.2.	It shall be possible to make content members-only, so that only registered users who are members or who are assigned to the group can see it; [low priority]	L

4.3.1.	It shall be possible to make wiki pages public, so that any registered user can edit the pages.	H
4.3.2.	It shall be possible to make wiki pages members-only, so that only registered users who are members or who are assigned to that group can edit the pages; [low priority]	L
4.4.2.	It shall be possible to make commentary members-only, so that only registered users who are members or who are assigned to that group can create and see it; [low priority]	L
4.5.1.	There shall be tags that can be entered by any user;	H
4.5.2.	There shall be tags that can only be entered by DLF staff. [low priority]	L
4.5.3.	DLF staff shall be able to remove any tag.	H
5.1	The site shall have the ability to present forms which generate email sent to appropriate DLF staff persons.	H
5.2.	The site shall be able to identify orphan pages (pages without any inbound links). [low priority]	L
5.3.	The site shall be able to identify stale links (links that point to nowhere). [low priority]	L
5.4.	The site shall be responsive, most pages should load in less than two seconds and no page should require more than four seconds to load under reasonable network conditions. [low priority]	L
5.5.	The site shall adhere to the web accessibility guidelines of W3.org. [low priority]	L
5.5.1.	The site shall provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.	H
5.5.2.	Content shall be presentable in different ways (for example, with a simpler skin) without losing information or structure.	H
5.5.3.	The site shall make it easy for users to see content, including separating foreground from background.	H
5.5.4.	The site shall make all functionality available from a keyboard. [low priority]	L
5.5.5.	The site shall provide ways to help users with disabilities navigate, find content and determine where they are.	H
5.5.6.	The site shall make text content readable and understandable (even via screen readers).	H
5.5.7.	The site shall make pages appear and operate in predictable ways.	H
5.5.8.	The site shall maximize compatibility with current and future user agents, including assistive technologies.	H

	FUNCTIONAL REQUIREMENTS	*Priority*
1.1.	Content of the site shall be well separated from design to facilitate editing of the content without concern for the design. (E)	H
1.2	Content on the site shall have URLs that are persistent enough for embedding into other settings like del.icio.us, digg, and user blogs. (C)	H
1.3	Content shall be open to web spiders such as Google. (D,F,G)	H
1.4.	Content of the site shall be editable from any web browser. (E)	H
1.4.1.	When editing, the site shall display date, time and user who last edited each page. (E)	H
1.4.2.	The site will respond gracefully to multiple, simultaneous attempts to edit one item. (E)	H
1.5.	The site shall accept file uploads. (B,E,L)	H
1.6.	The site shall be able to aggregate content made available via RSS. (H)	H
1.7.	The site shall be able to accept comments on selected pages and documents. (B,I)	H
1.7.1.	It shall be possible to attach comments at the paragraph level to designated pages of the site. (B) [low priority]	L
1.8.	It shall be possible for multiple users to jointly edit designated pages of the site as wiki pages. (B)	H
1.9.	Users shall be able to tag each page of the site with multiple terms. (J) [low priority]	L
1.10.	The site shall be able to “freeze” certain content into an archival form that no longer accepts comments or editorial changes. (J) [low priority]	L
1.11.	Newsreaders shall be able to subscribe to updates of changes to the content within designated areas of the site. (A,C,E,H) [low priority]	L
2.1.	The site shall have a clearly designated area for DLF Forum information. (A,E,F)	H
2.2.	The site shall allow for the creation of designated group areas. (B,C,D,I,J)	H
2.3.	The site shall include a contacts area with information about DLF. (G)	H
2.4.	Each group area shall include a contacts page with information about members of that group. (C) [low priority]	L
2.5.	The site shall include a public relations area with general information about the organization. (K)	H
2.6.	The site shall include an opinions area to aggregate blog content from around DLF. (H) [low priority]	L
2.6.1.	Aggregated blog entries shall include links back to native platforms. (H)	H
2.7.	The site shall present a sidebar for navigation. (H) [low priority]	L
2.8.	The site shall clearly designate archival or non-active content. (J)	H
2.9.	The site shall provide a workflow for managing DLF Forum information. (E) [low priority]	L

2.9.1.	Data gathered as users propose sessions shall be maintained and enhanced as sessions are accepted and presented. (E) [low priority]	L
2.9.2.	Data gathered to describe forum shall be used to enhance information about individual and institutional interests. (E, K) [low priority]	L
3.1.	It shall be possible to register users of the DLF site. (A,B,E,I)	H
3.2.	It shall be possible to distinguish staff from non-staff users of the site. (E,J,L)	H
3.3.	It shall be possible to distinguish between member and non-member users of the site. (A,B) [low priority]	L
3.4.	It shall be possible to assign each user to any number of groups on the site. (B,I)	H
3.6.	It shall be possible to designate “super-users” with full access to all areas of the site. (J)	H
3.7.	Each user shall have a profile on the site to be referenced from various contacts pages. (C,G) [low priority]	L
4.2.	Group areas of the site shall include at least three levels of access for their content: (B,C,D,I)	H
4.2.1.	It shall be possible to make content public, for all to see; (C,D)	H
4.2.3.	It shall be possible to make content private, so that only registered users who are assigned to that group can see it. (B,I)	H
4.3.	Wiki areas of the site shall include at least two levels of access: (B)	H
4.3.3.	It shall be possible to make wiki pages private, so that only registered users who are assigned to that group can edit the pages. (B,I)	H
4.4.	The ability to leave comments on the site shall include at least three access levels: (B,D,I)	H
4.4.1.	It shall be possible to make commentary public, for all to create and see; (D)	H
4.4.3.	It shall be possible to make commentary private, so that only registered users who are assigned to that group can create and see it. (B,I)	H
4.5.	There shall be at least two classes of tags: (J) [low priority]	L

GIT has expanded the Use Case Catalog to include implied functions

Actor	Function	Expanded Use Case Catalog	Comments
DLF website members	login	UC0	
member libraries	login	UC0	reused from DLF website members
	info about activities	UC1.1	
	info about structure	UC1.2	
	info about governance	UC1.3	

	press releases	UC18.1	reused from Press
	DLF priorities	UC1.5	
staff of member libraries	login	UC0	reused from DLF website members
	info about forums	UC2.1	
	registration for forums	UC2.2	
	forum presentations	UC2.3	
	info about initiatives	UC2.4	
	info about standards	UC2.5	
working groups	login	UC0	reused from DLF website members
	modify group information	UC3.1	
initiative leaders	login	UC0	reused from DLF website members
	post info about initiatives	UC4.1	
	community space for members of initiative (def to open)(pers info keeps closed)	UC4.2	
	attract volunteers	UC4.3	
	gather input on work-in-progress	UC4.4	
allied organizations	login	UC0	reused from DLF website members
	allied uses	UC5.1	
grant-makers	login	UC0	reused from DLF website members
	quantitative metrics for assessment	UC6.1	
DL community of practice	login	UC0	reused from DLF website members
	custodian of documentation	UC7.1	
	standards	UC7.2	
supporting agencies	login	UC0	reused from DLF website members
	insurers uses	UC8.1	

government	login	UC0	reused from DLF website members
	internal revenue service	UC9.1	
legal	login	UC0	reused from DLF website members
	legal uses	UC10.1	
public	reports of outcomes and impacts of initiatives	UC11.1	
	contribute feedback	UC11.2	
	info on best practices	UC11.3	
	info on how to get started in DL	UC11.4	
	purchase of DLF publications	UC11.5	
	list of members	UC11.6	
	staff directory	UC11.7	
	board/exec comm directory	UC11.8	
	description of DLF	UC11.9	
	group information	UC3.1	reused from working groups
	Search	UC11.10	
	blog aggregator	UC12.7	reused from staff of DLF
	DLF forum	UC12.8	reused from staff of DLF
	press releases	UC18.1	reused from press
staff of DLF	login	UC0	reused from DLF website members
	file sharing	UC12.1	
	policy documents	UC12.2	
	travel forms	UC12.3	
	mission statement	UC12.4	
	list of members	UC11.6	inherited from public
	historical documents	UC12.5	
	Content Management	UC12.6	
	modify blog aggregator	UC12.7	
	modify DLF forum	UC12.8	
contractors to DLF	login	UC0	reused from DLF website members
	contractor uses	UC13.1	

	DLF forum	UC12.8	reused from staff of DLF
board & exec comm	login	UC0	reused from DLF website members
	exchange info (director's blog)	UC14.1	
	meeting agendas	UC14.2	
	budget planning	UC14.3	
committees	login	UC0	reused from DLF website members
	committees uses	UC15.1	
consumers of DLF output	login	UC0	reused from DLF website members
	standards	UC7.2	reused from DL community of practice
	forum presentations	UC2.3	reused from member libraries
	publications	UC16.3	
contributors to social forums	login	UC0	reused from DLF website members
	discussion of DL futures	UC17.1	
press	login	UC0	reused from DLF website members
	press releases	UC18.1	
website administrator	login	UC0	reused from DLF website members
	member accounts management	UC19.1	
	configuration	UC19.2	
	issues managements	UC19.3	
	security administration	UC19.4	
	information & space administration	UC19.5	
	statistics & reports	UC19.6	

In order to cross-reference the original Use Cases with our new Use Case Catalog, we present the following table:

RFP Use Cases	Proposal Cases
A	UC2
B	UC3
C	UC11.10
D	UC11.11
E	UC12.8
F	UC12.8
G	UC11.6 UC11.7 UC11.8 UC11.9
H	UC12.7
I	UC11.8
J	UC18.1
K	UC12.8

Hosting

Hosting is not included as part of the GIT Proposal.

Security

The system will have its own application level security in order to manage and control the users' access to specific modules or information content. At the application level, the DLF website will maintain different groups with predetermined access rights to the system. The system administrator will have to register a user after the Committee approval, assigning the user to a group and provide the user with a secured password before he or she can access the system.

Training

GIT will impart training to DLF staff on the following items:

- Operation of DLF website
- Maintenance of the System

Development Framework

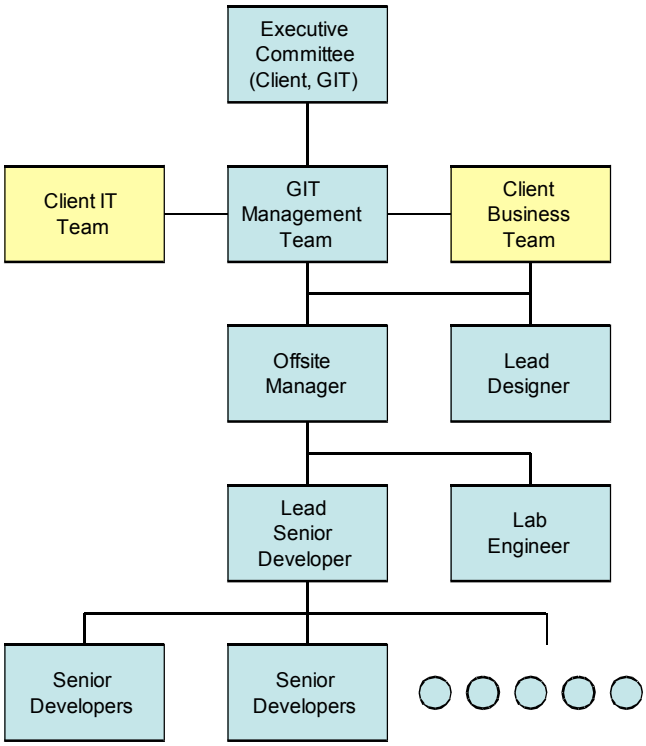
Development Architecture

The system will be constructed as a Web application using:

- Windows Server 2003 standard or Linux
- IE6, IE7, Firefox 2.0, Firefox 3.0, Safari 3.0
- PHP, Symfony
- MySQL Database

Development Organization

The following chart outlines the proposed organization for the project team:



Use Case Specifications

Use Case documentation will be used to document specifications and agree on what is being developed. The following template will be used to document the Use Cases:

Title		
Actors		
Description		
Flow of Events		
User Action	***System Response***	
A.		
B.		
C.		
Special Requirements		
Assumptions		
Pre-conditions		
Post-conditions		
User interface/ Screen		
Business Rules / Validation Rules		
1.		
2.		
Business Entities		
Related Use Case		
Issues		
Modified by	**Date**	**Version**

Quality Assurance Testing

The following plans and processes will be used to execute the Quality Assurance Testing of the application:

Testing Plans

Test Plan Name	
Test Desription	
Participants	
Testing Responsibilities	
Training Requirements	

Test Case ID	Step	Defect #	Description	Expected Result	Actual Result	Auto-mated?	Status	Date	Priority	ENV 1	ENV 2	ENV 3

Testing Process

1 - Define Project/Testing Scope

2 – Develop Test Environment

3 – Design Test Cases

4 – Smoke Test

5 – First Cycle Test

6 – Analyze/Report First Cycle Test

7 – Second Cycle Test

8 – Analyze/Report Second Cycle Test

9 – Regression Test

10 – Final Report

11 – Evaluation of Testing

	Test Cycles						
Test Case Sets (Scripts)	Smoke Test	First Execution	Second Execution	Third Execution	Regression Test	Fourth Cycle	Any Test Cycle
Installation Test Cases	x						
Basic Function Test Cases	x						
Manual Test Cases		x					
Automated Test Cases		x					
Performance, Security, Misc. Test Cases		x					
All Test Cases That Fail in the First Execution			x				
All Test Cases That Fail in the Second Execution				x			
Selected Test Cases					x		
Test Cases That Fail in Regression Process and in Previous Cycles						x	
Test Cases that Fail in the Previous Cycles							x

Change Control

The following describes the change control process to be utilized on the project. Any changes from the documented Use Cases and Report Formats will impact the fixed price costs and the schedule. Any change must be agreed between all parties. Both parties will do their best to review and agree on specifications to avoid the necessity for change control.

The analysis required to determine the impact of changes will also be accumulated and charged as an addition to the fixed price costs. The analysis of the changes will not exceed four (4) days.

Purpose

This document describes the process that is to be used for requesting and managing changes to work products created or maintained by the members of <project>. This process will facilitate communication about requested changes among the stakeholders of <project>, provide a common process for resolving requested changes and reported problems, and reduce the uncertainty around the existence, state, and outcome of a change that has been requested in a work product.

Scope

Any stakeholder of <project> can submit the following types of issues to the change control system:

- requests for requirements changes (additions, deletions, modifications, deferrals) in software currently under development
- reports of problems in current production or beta test systems
- requests for enhancements in current production systems
- requests for new development projects

This change control process applies to baselined work products created or managed by the members of the <project>, including:

- software that has been released to production or is in beta test
- requirements specifications for <project>
- group procedures and processes
- user and technical documentation

Change Form

Client Project Number	Project Change Request	Project Number

Client Name:		Project Name:			
Client Project Manager:		Project Manager:			
Project Change Number:		Requested By:		Status:	
Change Summary (Title):					

Detailed Description of Project Change:

Justification for Project Change:

Impact of Project Change:

Will the project completion date change?		Will the project deliverables change?	
Will the total cost of the project change?		Will the personnel requirements change?	

Change Request Activity Log:

Client Approval		Vender Approval	
Name	Date	Name	Date

High Level Project Plan

The tasks in the project plan include but are not limited to the following:

Discover and Analysis

- Develop a deep understanding of the context, opportunities and challenges of the new website and establish the criteria for success.
- The discovery and analysis phase involves all deliverables relating to the understanding of the audience, its needs and how it will interact with the site.

User Experience Definition

- In the definition phase, the site goals, recommendations, and prioritized features and functionality need to be translated into an organized website experience, including navigation, content plans and look and feel.
- Design the user experience by creating increasingly specific site maps and wireframes that enumerate all features, content and functionality to be found on the new website. Each set of wireframes will be presented for approval and sign-off.
- For each approved wireframe, we will work collaboratively to annotate these schematics and indicate required page behaviors, document how they tie into the airport's web platform and search requirements (or other technical components) and create functional specifications for the site.
- Once the wireframes are completed and approved, we will create two different design directions for the site. The initial presentations will consist of a set of several key pages on the site for review and selection. We will then further refine the selected direction and present the results to the airport for review and further feedback.
- Upon approval, we will then create final designs for all of the templates and page elements to be included in the site.
- The content architecture is refined and current content assessed for reusability. At this point, a final content development scope is assembled including a content gap analysis and presented for review.

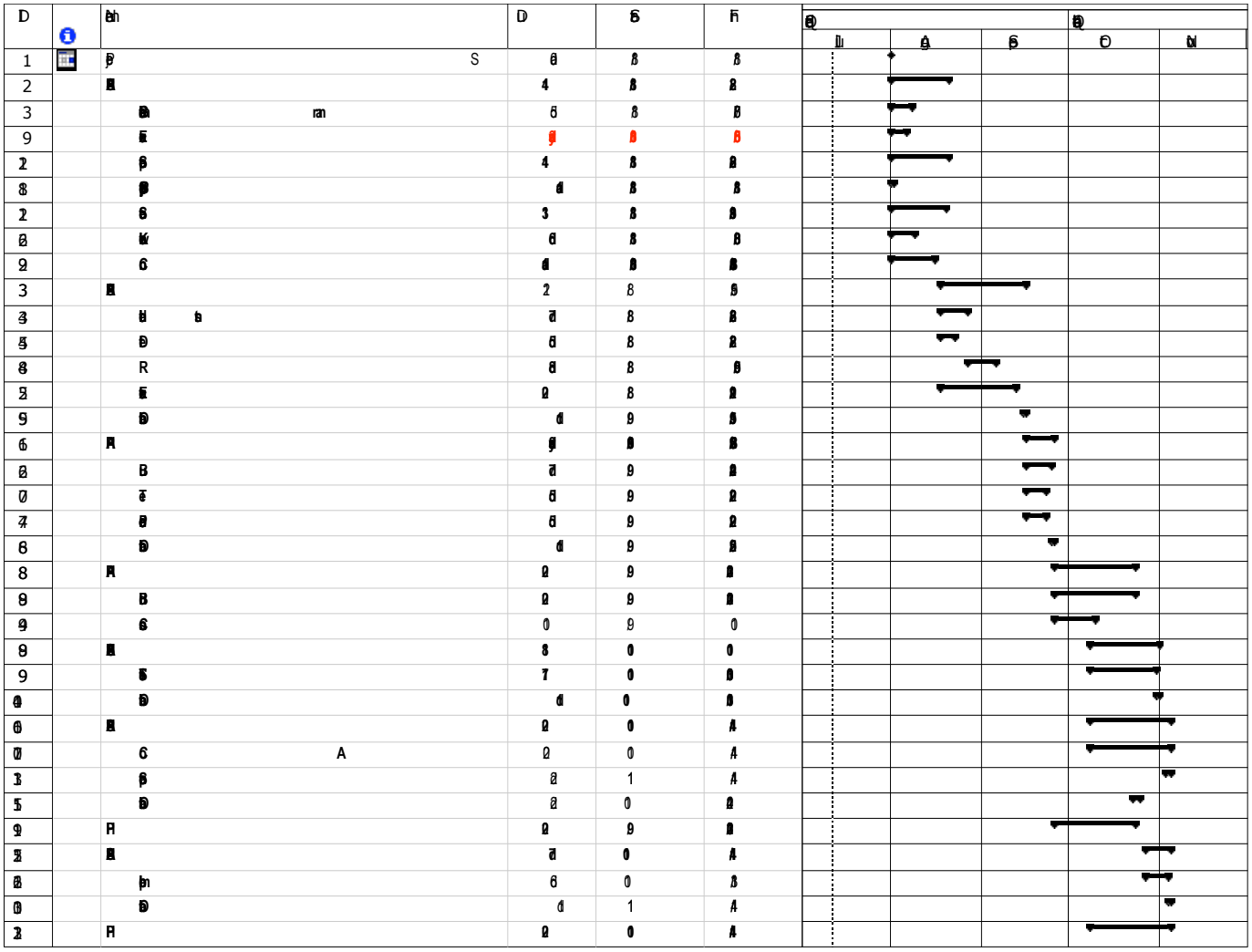
Content Creation and Production

- In the production phase, all of the creative and technical elements will come together in a working version of the website. Simultaneously, the content is created, refined, and loaded into the web platform.
- During this step, we will develop the content for launch on the site as specified in the previous phase. Using the existing source materials, we will create initial drafts for review by the appropriate content owners at the airport. Upon receiving feedback, we will make revisions and present the content for approval. Following the approval of the template designs, we will need to develop the front-end technology (HTML, Flash, CSS, etc.) to display the user experience, and prepare this code for integration with the web platform. From this core set of templates (as well as the approved copy deck) we can create a staged version of the website to review before the actual launch.
- As the site is developed, we need to test each component and open that section of the site to inspection by an appropriate member of the airport.
- Once the site has been through rigorous testing, the beta site will be opened for extended testing with members of the airport.

Documentation and Implementation

- Following the approval of all content and technical deliverables, we need to aggregate all deliverables, graphical assets and other elements and deliver them to the website support team (IT, marketing) for ongoing operation on the site servers.
- Assure quality control during the integration process.
- Following the completion of the code and assets, there will be ongoing requirements to provide additional support once the site is live. These support requirements may include providing quality control oversight, making adjustments due to unforeseen requirement changes, or helping develop additional content elements.

The following represents a high level project plan at a summary phase level. Actual dates will be refined as part of the Analysis Phase (durations are preliminary elapsed time estimates).



Cost Proposal

Resource Rates

The following chart outlines the hourly rate of resources to be assigned to the project to develop the system:

Position	Position Description	Hourly Rate
Onsite Manager / Business Analyst / Liaison to Offsite Team	Onsite Manager / Supervises all project activities / Analyzes Business Requirements / Participates in development meetings / Responsible for Progress Reports / Supervises Acceptance and Integration Tests / Responsible for Customer Training / Manages Cutover / Liason to Offsite Team	$100
Offsite Manager	Supervises Development Team / Analyses Business Requirements / Leads development meetings / Assists in Progress Reports / Assists in Acceptance and Integration Testings / Manages Development Team / Manages Development Plan	$55
Senior Designer / User Interface Engineer	Leads development of the user experience / Leads graphic design, look and feel / Works with client to review prototypes	$75
Team Lead Senior Programmer / Developer	Leads Application Design / Coordinates Developer Team / Leads development effort / Coordinates Development meetings / Ensures coding standards / Inputs to Progress Reports	$42
Senior Programmer / Developer / Business Analyst	Participates in Functional Requirements Analysis / Participates in the development meetings	$40
Senior Programmer / Developer	Develops the application / Produces Program Documentation / Performs Unit Testing / Participate in the Progress meetings	$40
Senior Programmer / Developer / QA Tester	Participates in application development / Designs and coordinates Test Plans / Conducts QA Tests / Produces Test Reports / Participates in development meetings	$35
Lab Engineer	Provides technical software & hardware support / Installs the required applications / Executes technical maintenance tasks / Administers security profiles / Installs workstations and equipment / Monitors the network / Conducts back-ups and recoveries	$30

Resource Allocations

The following chart outlines the number of FTEs to be assigned to the project by month:

Resource Allocation	Aug	Sept	Oct	Total Hours	Total FTE Months
Onsite Manager / Business Analyst / Liaison to Offsite Team	0.1	0.1	0.1	48	0.3
Offsite Manager	0.1	0.1	0.1	48	0.3
Senior Designer / User Interface Engineer	0.1	0.1	0.1	48	0.3
Team Lead Senior Programmer / Developer	1	1	1	480	3
Senior Programmer / Developer	3	2.5	2.5	1280	8
Senior Programmer / Developer / QA Tester	0	1	1	320	2
Lab Engineer	0.1	0.1	0.1	48	0.3
Total	**4.4**	**4.9**	**4.9**	**2272**	**14.2**

Project Costs

The following chart outlines the project costs:

Position	FTE Month Total	Project Hours	Hourly Rate	Total Costs
Onsite Manager / Business Analyst / Liaison to Offsite Team	0.3	48	$100	$4,800
Offsite Manager	0.3	48	$55	$2,640
Senior Designer / User Interface Engineer	0.3	48	$75	$3,600
Team Lead Senior Programmer / Developer	3	480	$42	$20,160
Senior Programmer / Developer	8	1280	$40	$51,200
Senior Programmer / Developer / QA Tester	2	320	$35	$11,200
Lab Engineer	0.3	48	$30	$1,440
Total	**14.2**	**2272**		**$95,040**

The following chart outlines the estimated travel costs:

Meeting Expenses (est.)		# FTEs	# Days	Rate	Total Costs
Marketing Meetings (Beginning of Project)					
	Airplane	3		$400	$1,200
	Auto Rental		3	$100	$300
	Hotel	3	3	$150	$1,350
	Meals	3	3	$50	$450
	Sub Total				**$3,300**
User Acceptance Meetings (End of Project)					
	Airplane	3		$400	$1,200
	Auto Rental		3	$100	$300
	Hotel	3	3	$150	$1,350
	Meals	3	3	$50	$450
	Sub Total				**$3,300**
	Total				**$6,600**

Payment Schedule

The following outlines the payment schedule for the project invoices:

Milestone	Start of Project	End of Analysis	End of Design	End of Development	End of Deployment
Estimated Date					
Percent	20%	20%	20%	20%	20%
Payment	$19,008	$19,008	$19,008	$19,008	$19,008

Travel expenses will be invoiced separately when receipts are gathered.

Ongoing Maintenance

The following outlines the projected costs for ongoing maintenance:

Position	Hourly Rate	FTE	Monthly Total Costs
Senior Programmer / Developer	$40	0.6	$3,840
Senior Programmer / Developer / QA Tester	$35	0.4	$2,240
Total			**$6,080**

Note: Ongoing Maintenance requirements will need further discussion and will be adapted to client needs.