

IBM Proposal For e-Business Solution

Prepared for

FeeSimple Hosting

November 2, 2001



International Business Machines Corporation

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1. Introduction

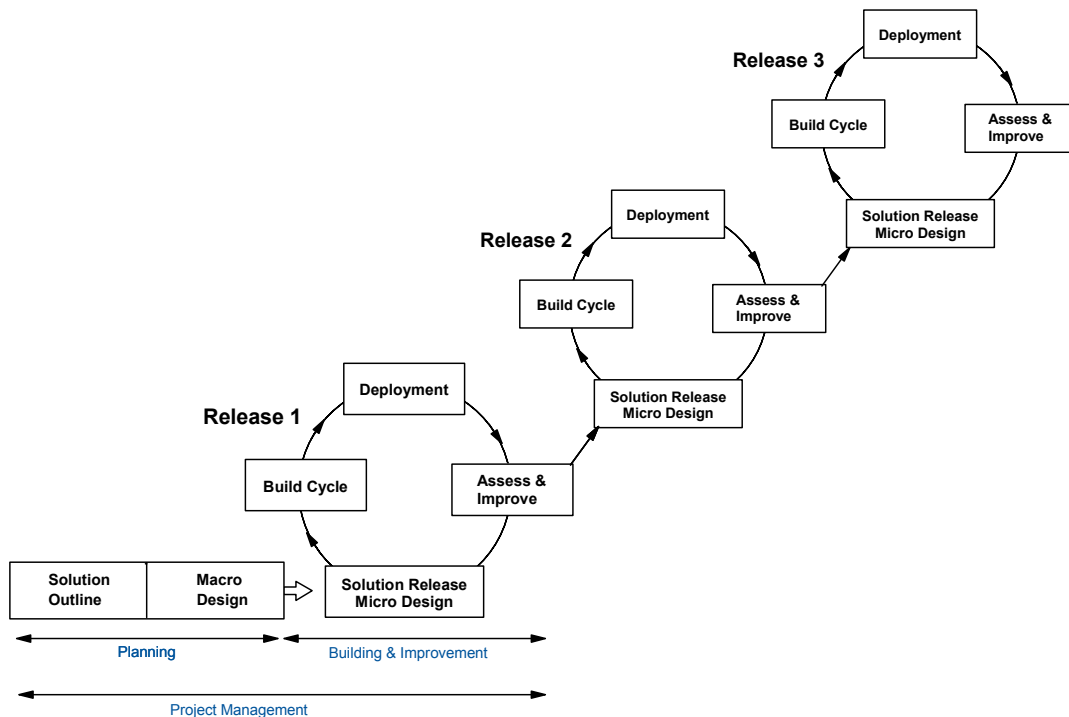
IBM is pleased to present FeeSimple Hosting (FSH) with this proposal for IBM Global Services assistance with the micro design of the FSH solution. The design stage is critical in any IT project, because it is the stage where the scope of the project is identified and the blueprints for the build phase are developed.

This project will address the micro design of the forward facing title business application and the back office business system. Our objective is to design the system in such a manner that it will fulfill FSH's immediate startup business needs and scale as the business grows over time.

1.1 IBM Methodology

IBM has extensive experience with solution design and development. It is IBM's intent to conduct intensive workshops in order to identify and validate FSH's business requirements and processes. This will give IBM a firm understanding of the various system components needed to develop the technical infrastructure required to support FSH's business systems and applications.

The high level process that IBM uses in the e-business solution development is:



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While the intention of IBM is to help FSH through each of these steps, we propose that the execution be performed in two phases. The first phase, addressed by this SOW, is to execute the Solution Outline, Macro Design, and Micro Design. This stage will produce a design, schedule, and estimate for the execution of the second phase (Build and Deploy). IBM's experience is that to effectively scope, schedule, and estimate the Build and Deploy stages, due diligence must first be done in the Solution Outline, Macro Design, and Micro Design steps. These steps will detail the business and technical issues and goals, resulting in an effective plan for the Build and Deploy stage.

The intention of this engagement is to focus on the requirements for the design of the FSH e-business solution. Our methodology will also take into consideration the long-term plans FSH has for its business. We view the e-business development process as an evolutionary process, a process of continual examination of the business processes, introduction of new applications and leveraging position in the marketplace. This cycle repeats itself on an ongoing basis with the introduction of new functions aimed at providing timely products and services to your customers. IBM is well positioned to assist FSH as we have with thousands of other satisfied customers.

2. Statement of Work

2.1 Project Scope

The scope of this project is for IBM to assist FSH with the development of the Micro Design work products necessary to enter a Build phase. IBM will work with FSH to establish the overall requirements and use existing knowledge and documentation to fulfill this goal.

This Statement of Work (SOW) is subject to the terms and conditions of the IBM Customer Agreement (*Agreement*). Appendix A, "Deliverable Materials", Appendix B, "Required Consents", Appendix C, and "Project Change Control Procedure", are all incorporated in and made a part of this SOW.

2.2 Key Assumptions

This SOW and IBM's estimates to perform the work described in this SOW are based on the following key assumptions. Any changes to these assumptions must be processed in accordance with the *Project Change Control Procedure* described in Appendix C. The investigation and implementation of changes can result in modifications to the effort, schedule, and charges included in this SOW.

- FSH personnel who are assigned to this project will have the technical and/or operational skills, knowledge, and decision-making authority necessary to participate in the project; these are described in the FSH *Responsibilities* section of this SOW.
- Services provided under this Statement of Work will primarily be performed at an IBM work location.
- Some IBM internal activities (e.g., internal research and consultation, quality assurance of deliverables) for this project may be performed on IBM premises; time spent on engagement-related activities will be billable to FSH.
- IBM may use subcontractors to perform a portion of the proposed work; if it is determined that subcontractors are required, IBM will notify FSH and FSH will have the opportunity to review the skills and experience of those personnel.
- All content will be sourced, collected, managed and administered by FSH.
- FSH resources will participate fulltime in the workshop sessions. FSH required resources will be identified in project plan and/or by the IBM Project Manager.
- FSH will have an opportunity for one (1) iteration to review and request changes to each deliverable. Requested changes to any deliverable must be made in writing to the IBM Project Manager (e-mail is acceptable) within two (2) working days of delivery; otherwise, the deliverable will be considered acceptable.
- FSH will provide all content and images in a format agreed to by IBM.
- This SOW does not include services for application development, deployment, post-implementation support and maintenance, hosting. Also, it does not include infrastructure for the testing environment, the development environment, or the hosting environment.
- The deliverables identified in the *Activities and Responsibilities* section of this SOW are Type II deliverables as defined in the IBM Customer Agreement.

- All estimates contained in this SOW, or in the deliverables, are exclusive of any hardware, software, maintenance, network or infrastructure costs

2.3 IBM Responsibilities

The tasks that IBM will perform are described below.

2.3.1 IBM Project Management

Description:

The purpose of this activity is to provide direction and control of IBM project personnel and to provide a framework for project planning, communications, reporting, procedural and contractual activity. IBM will perform the following tasks:

- Review project goals and objectives, the Statement of Work and the contractual responsibilities of both parties with the FSH Project Manager.
- Review areas of risk and containment plans with the FSH Project Manager.
- Maintain project communications through the FSH Project Manager.
- Review project deliverable guidelines with the FSH Project Manager.
- Prepare a Project Plan for performance of this Statement of Work, which defines the task, responsibilities, milestones, and estimated schedule.
- Measure and evaluate progress against the Project Plan with the FSH Project Manager.
- Resolve deviations from the Project Plan.
- Conduct weekly project status meetings.
- Prepare and submit a weekly Status Report to the FSH Project Manager.
- Administer the Project Change Control Procedure with the FSH Project Manager.
- Coordinate and manage the technical activities of project personnel.

Completion Criteria:

This is an on-going activity under which IBM will perform the specified tasks and provide the deliverables indicated. This activity will be complete when the IBM Responsibilities described in this SOW have been completed, or the project completes under any of the terms in Section 2.5, "Completion Criteria".

Deliverables:

- Weekly Status Reports
- Project Plan

2.3.2 Validate Business Process Model

Description:

This task is performed by:

- Obtaining and understanding any process models that exist in the FSH environment.
- Describing currently defined or future business processes in terms of roles within the business and the activities they perform.

Required Inputs:

- Workshops and existing FSH documentation

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, "Completion Criteria".

Work Product:

- Process Definition

2.3.3 Document Business Rules

Description:

This task is performed by:

- Conducting individual interviews and group meetings with Subject Matter Experts (SMEs).
- Finding rules in procedures manuals, human resources practices, and other prescriptive business documentation.
- Abstracting rules from business events.
- Analyzing any branching point in a business process model where decisions are being made, or conditions are being tested to determine how the flow of work should proceed.
- Refining classified business terms in the areas of the types of contracts entered into, the things of interest that can be the subjects of contractual relationships, and various before and after conditions.

Required Inputs:

- Process Definition – From activity 2.3.2 outlined in this SOW

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, "Completion Criteria".

Deliverables:

- Business Rules Catalog

2.3.4 Specify System Context

Description:

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Specify System Context is a graphical diagram that:

- Identifies all information exchanges between the system and its environment, and sources or destinations of data used by the system.
- Identifies all external entities that need to interface to the system.
- Determines the inputs and outputs needed to support each of these entities.

These information exchanges and data sources represent constraints that the system under development is bound by. The development team and the client have some control over objects within the system boundary. Specify System Context identifies required interfaces with other systems (i.e. files, databases, etc.) and provides context for describing internal aspects of the system. Detailed characteristics include number of instances, available access time, type of communication, hardware brand/model, operating system brand, volume and frequencies.

Required Inputs:

- Process Definition – From activity 2.3.2 outlined in this SOW

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, “Completion Criteria”.

Deliverables:

- System Context Diagram

2.3.5 Define Use Cases

Description:

The initial objective of this task is to identify use cases to give a breadth-first description of the functional requirements. All actors should be identified and defined. The actors may be roles played by users of the system and external systems with interfaces to the system under development. The distinct ways each actor uses the system must be identified. Each use case should include the name, description, business event, and actor for that use case. Use cases should also be numbered in a consistent manner and, if necessary, grouped into subject area.

The use cases must be extended and refined, at a minimum, by specifying terminating outcomes, conditions affecting terminating outcomes, preconditions, and by writing the main course description. Drilling down to a greater level of detail will often reveal additional use cases that are required to fulfill the requirements. These new use cases must be added and described.

Finally, the model must be restructured and layered by creating new abstract use cases and associating them with the existing use cases via the uses and extends associations. Unless the use cases are refined to the full description level (optional at this point in the process), it will be difficult to complete the model restructuring and layering. The objective here is to begin the process by looking out for sequences of interactions common across use cases (uses associations) and complex alternative courses that seldom occur (extends associations) while accomplishing the work described above. Any candidate abstract use cases found should, of course, be described as before. However, model details will evolve as more information becomes available. Care must be taken to avoid any semblance of functional decomposition. A restructured and layered use case model should be easier to understand, not more difficult.

The actor-system interactions should be described for all use cases. Use any combination of the following when describing, system steps decision table, flow of events table, and system sequence diagrams. Each one of these techniques documents the expected usage and behaviors of the system in various different styles and depth. Choose the technique(s) that are appropriate for the project and the specific use case. When describing the use cases, be on the lookout for sequences of interactions that are common across use cases and complex alternative courses that seldom occur.

After the actor-system interactions are described, the use case model must be restructured and layered by creating new abstract use cases and associating them to the existing use cases via the uses and extends associations, and restructuring the model separates out commonality to avoid redundancy. Layering the model captures the basic requirements first and introduces complexity later. New abstract use cases identified should be described as before.

Required Inputs:

- Process Definition – From activity 2.3.2 outlined in this SOW

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, "Completion Criteria".

Deliverables:

- Use Case Model

2.3.6 Create Logical Data Model

Description:

An inventory is taken of all the entities about which the system needs to store facts. An entity is a person, place, thing, concept, or event of relevance to the business. Entities are composite things: they are made up of attributes. Attributes are atomic, i.e., they cannot be decomposed into more simple structures.

The entities and their attributes are laid out in an Entity Relationship network diagram. The goal is to attain coverage of the entire system. The business rules provide information on relationship cardinalities.

Once the views become stabilized, they are integrated into one model. Naming differences for entities and attributes are resolved. The integrated entities generally contain a superset of the attributes identified by the separate teams. Cardinalities are changed to account for the widest range of values.

The completion of this task yields an information model in 1st normal form, integrated to span the entire system, with known entities and attributes defined in the data dictionary. A matrix containing the process/data usage has references to all the entities in the Logical Data Model.

Next, the populations of entities and attributes must be updated to correctly model the requirements. Using business rules, primary and alternate keys for each entity are determined.

Once the entities, attributes, and keys are established, the Logical Data Model must be normalized to 3rd normal form. This ensures that as input to physical design, the data model is minimal, thus aiding verification that the model is correct, consistent, and not redundant.

Finally, the process/data use matrix must be updated to reflect the changes in the Logical Data Model.

Required Inputs:

- Process Definition – From activity 2.3.2 outlined in this SOW
- Use Case Model – From activity 2.3.5 outlined in this SOW

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, “Completion Criteria”.

Deliverables:

- Logical Data Model
- Process/Data Usage

2.3.7 Detail Usability Requirements

Description:

Detail Usability Requirements reviews and further augments requirements identified earlier as necessary and adds measurement details for each requirement. Measurement details are for a specific user profile and consist of preconditions and performance criteria.

Required Inputs:

- Use Case Model – From activity 2.3.5 outlined in this SOW

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, “Completion Criteria”.

Deliverables:

- Usability Requirements

2.3.8 Develop Architecture Overview

Description:

The architecture overview is created early in the lifecycle of a project. It reflects early decisions and working assumptions on implementing the FSH's “to-be” goals, as well as decisions concerning the physical and logical architecture and non- functional requirements of the system. It is produced by the architect, often in collaboration with the project sponsor. It takes the form of an informal, rich picture, storyboard, or iconic graph. Conceptually, it illustrates the essential nature of the proposed solution, conveying the governing ideas and including the major building blocks.

At this point the Architecture Overview is a provisional first pass.

Required Inputs:

- Non-Functional Requirements – From workshops

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, "Completion Criteria".

Deliverables:

- Architectural Decisions
- Architecture Overview Diagram

2.3.9 Specify User Interface Design**Description:**

Describe the sequence of screens (such as windows, dialog boxes, and prompts) the user expects to see and interact with on the system interface. Identify objects visible in the user interface. Identify object views, attributes and actions (per Visible Object). Allocate object views to windows and define window instances. Next, define modal dialogs and design and select icons to represent visible objects. Define window actions, their interdependencies and window flows.

Required Inputs:

- Use Case Model – From activity 2.3.5 outlined in this SOW

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, "Completion Criteria".

Deliverables:

- User Interface Design Specification

2.3.10 Define Test Strategy**Description:**

Document the Test Strategy at a high level including:

- Testing objectives: Set the direction for testing.
- Risk assessment: Initial assessment of business and technical risks from Project Management or from Solution Assurance Reviews.
- Test Focus Areas: Critical attributes of the system to be tested.
- Levels of test: Testing levels based on known standards within the client organization or IBM, or a combined set of both, that reflect levels needed to meet quality criteria defined in the Statement of Work.
- Types of test: Testing types to consider, relating to business functions (Functional Types) or to structural functions (Structural Types).
- Organizational responsibility: Based on project deliverables.
- Entry/Exit Criteria: Defined for different levels and for their importance to project success.

- Tools: Any technology or tools strategy, at the client organization or IBM, relevant to the project.
- Metrics: Any organization, business unit, competency metrics program or measurements strategy relevant to project quality criteria.

Required Inputs:

- Non-Functional Requirements – From workshops
- Usability Requirements – From activity 2.3.7 outlined in this SOW
- Use Case Model – From activity 2.3.5 outlined in this SOW

Completion Criteria:

This step will be considered complete when the deliverable materials listed in this section have been delivered to FSH, or the project completes under any of the terms in Section 2.5, “Completion Criteria”.

Deliverables:

- Test Strategy

2.4 FSH Responsibilities

The following sections outline responsibilities that IBM expects FSH to fulfill as part of the effort outlined in this SOW. IBM's performance is predicated upon the following responsibilities being performed in a complete and timely manner.

2.4.1 Executive Sponsor

Prior to the start of the engagement, FSH will designate an Executive Sponsor to act as the overall sponsor of this effort. The Executive Sponsor's responsibilities include:

- Provide access to FSH executives and personnel as well as partners, as required, for the scope of this engagement
- Serve as the escalation point for any issues that may be identified during this engagement
- Provide validation for the results and deliverables produced by the IBM project team
- Attend project status meetings

2.4.2 Project Manager

FSH will designate a person, called the FSH Project Manager, to whom all communications will be addressed and who has the authority to act on behalf of the FSH in all aspects of the contract. The FSH Project Manager's responsibilities include:

- Serve as the interface between the IBM project team and all FSH departments participating in this project
- With the IBM project manager, administer Project Change Control
- Obtain and provide information, data, decisions, and approvals, within two (2) business days of IBM's request unless FSH and IBM agree to an extended response time
- Resolve project issues and deviations from the project plan
- Attend project meetings and workshops
- The FSH Project Manager will review intermediate documents and final deliverables and acknowledge completion of the intermediate documents and final deliverables within two (2) business days. If documents or deliverables provided require changes, the FSH Project Manager will notify the IBM Project Manager in writing (e-mails are acceptable). Thereupon, IBM will assess the situation and recommend remedies to address the problem within two (2) business days. Potential remedies which impact project schedule or cost will be handled through the Project Change Control Procedures in Appendix C of this document. FSH will have an opportunity for one (1) iteration to review and request changes to each deliverable. Requested changes to any deliverable must be made in writing to the IBM Project Manager (e-mail is acceptable) within two (2) working days of delivery; otherwise, the deliverable will be considered acceptable.

2.4.3 Select Infrastructure Products

FSH will be responsible for selecting the program products to be used in the implementation of the solution. These products include but may not be limited to a Web application server

product, a Web server product, a database server product, an accounting application product and any associated hardware products. IBM will provide support to FSH in this activity.

2.4.4 FSH Personnel

FSH will be responsible for the selection, availability, and participation of the appropriate FSH and appropriate partner personnel during this engagement. The FSH Project Manager will work with the IBM Engagement Manager to schedule and coordinate this responsibility. The designated personnel will be responsible for the continued and complete participation in interviews, discussions, and decision-making that occur within the activities outlined in this proposal.

2.4.5 Documentation

FSH will provide the IBM project team with all documentation pertinent to the activities outlined in this proposal.

2.4.6 Office Space and Other Facilities

FSH will provide suitable office space, parking, office supplies, furniture, telephone, and other facilities equivalent to those provided to FSH employees for IBM project team members while working in FSH facilities. In addition, analog telephone lines will be provided for the IBM project team.

FSH will provide photocopying or other necessary clerical services for the IBM project team while working FSH facilities.

IBM, will likewise, provide office space and facilities to FSH personnel when working in IBM facilities.

2.4.7 Security and Laws

FSH is responsible for the actual content of any data file, selection and implementation of controls on its access and use, and security of the stored data.

FSH will identify and make the interpretation of any applicable federal, state, and local laws, regulations and statutes and insure that products of the system meet those requirements.

2.5 Completion Criteria

IBM has fulfilled its obligations under this SOW when any of the following first occurs:

1. IBM completes the tasks described in the "IBM Responsibilities" section in accordance with their completion criteria, including delivery of the items listed in the "Deliverable Materials" section
2. IBM provides the number of hours of services specified in "Charges"
3. This SOW is terminated in accordance with the provisions of the *Agreement*

2.6 Estimated Schedule

It is anticipated that the activities outlined in this SOW will be performed over an elapsed six-week period, depending on a mutually agreed to schedule and the availability of the appropriate FSH personnel. This engagement will start no later than January 15, 2002.

It will take IBM up to 10 business days to assemble the engagement team once FSH gives approval to start.

2.7 Charges

IBM will provide up to an estimated 2,600 hours at a blended hourly rate of \$236, for an estimated total funding requirement of \$613,600, to perform the tasks detailed in this SOW. FSH will be charged only for the actual hours provided by IBM in performing these services. In addition, FSH will reimburse IBM for actual engagement-related travel and living expenses incurred in providing these services.

IBM will invoice FSH for \$400,000 prior to the mutually agreed upon start date. Your signature on this document and a check for \$400,000 will signify your approval to commence work on this engagement. FSH will be liable for any taxes associated with this engagement. This proposal expires December 31, 2001.

Appendix A: Deliverable Materials

Below is a more detailed description of the purpose, content and delivery method for the Deliverables mentioned in previous sections of the SOW.

Process Definition

Description:

The Process Definition work product identifies and describes the current and / or future

- Processes (level 1)
- Sub-processes (level 2)
- Activities / actions (level 3)
- Tasks / work steps (level 4)

Levels - "current" environment: tasks / work steps (level 4) are only required when an application is being implemented to support the current process environment. Task level may also be required when the objective of the engagement is to identify incremental improvements to the current process rather than to completely redesign it. Essentially the engagement team should determine what levels are required to accomplish the objectives of the engagement. We recommend staying at the activity rather than task level where possible. Getting into task level detail can be redundant and time consuming if the client does not perceive any value.

Levels - "future" environment: tasks / work steps (level 4) are documented when defining the process enablers. Process enablers define the requirements for organization and technology to support the new process design.

The Process Definition work product encompasses process models, maps and supporting text. It applies to business processes within an enterprise and across supply chains. It applies to the day-to-day operational processes, the processes associated with strategic and tactical planning, management control and decision-making, resource management (HR, cash, facilities, IT), product / service offering development, markets, distribution channels and suppliers performance, etc. It applies to IT processes as well as IT support processes related to things like systems management and help desk. It also applies to the processes associated with creating and disseminating domain knowledge i.e. knowledge management.

Note re: numbers of models / maps of the "current" environment: where an enterprise has many geographic locations, divisions or subsidiaries, there may be many instances of this work product for the "current" environment because of variations in the processes. The intent is to harmonize the processes / reduce the number of instances of this work product in the "future" environment.

For IT architecture and design purposes, the processes / activities to be automated must be identified so that they can be rationalized. In other words, duplicate activities must be removed and the objects (nouns) must be consistent with the entities defined in the information model.

Purpose:

This work product related to the "current" environment is produced for one or more of the following reasons to:

- Understand and confirm the current business system (process, organization, technology); the flow and relationships (workflow, information flow, knowledge flow, control flow) between the processes, activities, etc.; the decomposition of the processes; the strategies, rules and policies that are supported; the time, cost and quality metrics.
- Provide a basis for the harmonization of current processes across different geographic locations, divisions or subsidiaries and identifying the best of breed in execution.
- Provide a basis for identifying problem areas with the current processes and opportunity areas where process redesign, new applications or enabling technologies could improve the current processes.
- Provide a basis for comparing current and future processes in order to develop a transition plan and identify initiatives / projects; also the impact of process redesign, new applications or enabling technologies on the current processes.
- Provide a useful vehicle for communication and ownership.

This work product related to the "future" environment is produced for one or more of the following reasons to:

- Communicate and obtain buy-in to the future process design (whether it be business processes, IT processes, or management system processes, etc.).
- Show how the process has been designed with the package or enabling technology in mind.
- Provide a basis for aligning process and data for those processes that will be automated.
- Provide the basis for the choice of detailed package functions.
- Provide the foundation for the configuration of the application package.
- Provide the basis for the choice of enabling technologies such as workflow and imaging.
- Provide the core project team, both IBMers and the client personnel, with a clear understanding of the impact on organization, roles and skills.
- Provide the basis for communication, training and procedures development.

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Business Rules Catalog

Description:

A Business Rules Catalog work product is an expression of business policy. As such, a business rule may:

- Provide a set of conditions that govern business behavior
- Provide the criteria for when an action is successfully or unsuccessfully completed
- Stipulate what other actions can or cannot be performed as a result of successful or unsuccessful completion
- Specify the response to some external event that impinges on the enterprise
- Govern relationships that need to apply among various business entities

The Business Rules Catalog is a listing of business rules in a structured format that provides for effective capture, location, and update of specific business rules.

Purpose:

Many policies of the business are explicitly stated in documents. Others are already encoded in application software or are implicit or are part of the tacit knowledge base of common practice. The rules that a business lives by form the heart of the application software that is needed by that business, which is built largely to enforce those rules. The purpose of an explicit Business Rules Catalog is to create an external representation of these rules so business people can validate them and developers can use them as well-defined input into the process of building software.

In addition, the Business Rules Catalog is used to:

- Determine cardinality and referential integrity constraints in data models and databases.
- Determine algorithms to be encoded in application programs.
- Centralize business rules in a technology-independent form so that they can be understood and agreed to by business experts before being encoded in software.
- Support the creation of software that makes use of externalized rules bases, expert systems, case-based reasoning, neural networks, and other technology that allows explicit representations of business logic.
- Determine which explicit and implicit policies will *not* be encoded in software. Some of those will continue to be enforced manually while others will be made obsolete or intentionally abandoned as the business moves forward.

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

System Context

Description:

The System Context work product initially represents the entire system as a single object or process and identifies the interfaces between the system and external entities. Usually shown as a diagram, this representation defines the system and identifies the information and control flows that cross the system boundary.

The System Context highlights several important characteristics of the system: users, external systems, batch inputs and outputs, and external devices.

- External events to which the system must respond
- Events that the system generates that affect external entities
- Data that the system receives from the outside world and that must be processed in some way
- Data produced by the system and sent to the outside world

The objects within the system boundary define the scope over which the development team has some control. The users and systems outside the boundary of the system are those that affect the system operation and development but are beyond the control of the developers within the currently defined scope of the project. Due to this scoping aspect of the work product, during early stages of a project it is useful to review this work product with the client to assist in delineating development team and client responsibilities.

Note that the System Context may limit the breadth of its coverage to emphasize just one class of external interfaces, for example, only the interfaces to external systems. Additionally, the details required at lower levels of elaboration will depend upon what interfaces are to be subsequently developed.

Purpose:

The purpose of this work product is:

- To clarify and confirm the environment in which the system has to operate. Once agreed to by the client and the development team, the System Context becomes very useful for maintaining focus on the development effort.
- To provide the details at an adequate level to allow the creation of the relevant technical specification.
- Verify that the information flows between the solution to be installed and external entities are in agreement with any business process or context diagrams.

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Use Case Model

Description:

The Use Case Model work product describes the functional requirements of the system under development. The model uses graphical symbols and text to specify how users in specific roles will use the system (i.e., use cases). The textual descriptions describing the use cases are from a user's point of view; they do not describe how the system works internally or its internal structure or mechanisms.

The Use Case Model is described by the following constructs (see Figure 1):

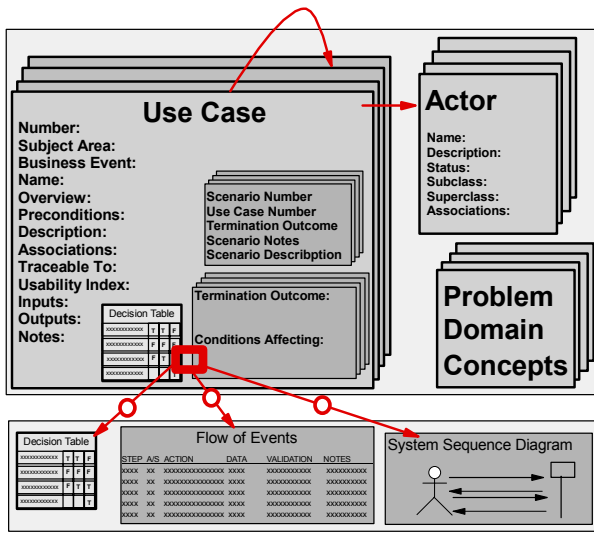


Figure 1. Use Case Model Constructs

- Actors (name, description, status, subclass, superclass, and associations)
- Use cases (number, subject area, business event, name, overview, preconditions, description, associations, inputs, outputs, traceable to, usability index, and notes)
- Communication-associations between actors and uses cases
- Relationships between use cases (same as use case associations)
- Termination outcomes
- Conditions affecting termination outcomes
- Termination outcomes decision table
- Use case scenarios (number, termination outcome, description, and notes)
- Problem domain concept definitions
- System steps decision table
- Flow of events table
- System sequence diagram

Actor names, actor descriptions, use case numbers, use case names, and use case business events, and use case overviews as well as communication-associations between the actors and

the use cases provides an overview of the functional requirements. The other constructs of the model document the expected usage, user interactions, and behaviors of the system in different styles and depth.

Purpose:

The main purpose of use case modeling is to establish the boundary of the proposed software system and fully state its functional capabilities to be delivered to the users. Other purposes are listed below:

- Provides a basis of communication between end users and system developers
- Is the primary driver for estimating the application development effort
- Provides a basis for planning the development of the releases
- Allows scheduling of common functionality early in development
- Allows development of smaller increments while maintaining broad coverage
- Allows scheduling of complex functionality later in development without changing the code that already exists or having to test for damage to earlier releases
- Provides a basis for identifying objects, object functionality, interaction, and interfaces
- Provides the primary basis for defining the user interface requirements
- Provides a basis for defining test cases
- Serves as the basis for acceptance testing
- Provides a basis for producing user support materials, such as user documentation and electronic performance support interventions

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Logical Data Model

Description:

The Logical Data Model deliverable is a network of entities and relationships. This network is a persistent record made by the system representing business information structures and rules. In terms of the ANSI/SPARC Three Schema Architecture, it is the Conceptual Schema of the business information. Entities are representations of a person, place, thing, concept, or event of relevance to the business. Relationships are representations of associations between business entities. All entities of a particular type contain the same attributes. Attributes document the characteristics of the entities that are relevant to the business.

Purpose:

The Logical Data Model serves the following purpose:

- Unambiguously represents the consultant's understanding of client business information structures and rules, enabling communication of this understanding to the entire development team
- Validates the data stores and flows in a functional model against the analysis of client data storage and processing needs
- Provides an implementation-free set of requirements for the physical database design task
- Clearly and uniquely identifies all business entities in the system

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Process/Data Usage

Description:

The Process/Data Usage work product is a bi-directional mapping between:

- The enterprise processes and enterprise information and/or
- Each entity in the data model and all the processes in the function model accessing it.

For enterprise information/data entities, processes/functions may:

- **Create** new instances
- **Read** existing instances
- **Update** or modify existing instances
- **Delete** existing instances

The matrix is usually known as a CRUD matrix because it documents the nature of the action that a particular process has on each entity. It can be defined at different levels, ranging from an enterprise level to a specific, single business system level. Both current and future versions of the matrices can be produced and, if it is appropriate, a gap analysis will highlight any major business implementation issues and considerations.

Purpose:

The purpose of the Process/Data Usage is to make explicit all the dependency relationships between processes and entities. This ensures that the:

- Processes within the enterprise/engagement scope and the key information have been identified
- Function model provides the necessary data support functions and that the data model provides the appropriate data to the functions
- As these models evolve, the Process/Data Usage helps to ensure that changes in one model are appropriately reflected in the other

Furthermore, it provides the basis for:

- Defining the boundaries of the overall application portfolio
- Data and function distribution and placement decisions
- Detailed system design

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Usability Requirements

Description:

The Usability Requirements work product is a documented set of measurable wants and needs for a new solution that define and describe various aspects of usability for the new solution under development (or refinements and extensions to an existing solution). These usability attributes and measurable requirements will be in text or tabular format within the document.

The usability attributes are those features that facilitate ease-of-use with the system. These include the attributes of interaction (e.g., navigation), display (e.g., screen layout), and affective (e.g., aesthetic). Measurable requirements are user performance or productivity needs (e.g., 2 minutes to complete a transaction).

Purpose:

The primary purpose of Usability Requirements is to ensure that the system meets the expectations of its users with regard to its ease of use. The work product is used to:

- Provide baseline guidance to the user interface developers on user interface design
- Establish performance standards for usability evaluations
- Define test scenarios for usability test plans and usability testing

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Architectural Decisions

Description:

An Architectural Decisions work product documents important decisions about any aspect of the architecture including the structure of the system, the provision and allocation of function, the contextual fitness of the system and adherence to standards.

An architecture is understood partly through the record of the important decisions made during its development. A well-documented architecture includes its own justification and evaluation criteria. The justification and evaluation criteria may be recorded alongside the decision or, at least in part, by reference to more generally applicable principles, policies and guidelines, which are found in other work products or in external references.

Purpose:

The purpose of the Architectural Decisions work product is to:

- Provide a single place to find important architectural decisions
- Make explicit the rationale and justification of Architectural Decisions
- Preserve design integrity in the provision of functionality and its allocation to system components
- Ensure that the architecture is extensible and can support an evolving system
- Provide a reference of documented decisions for new people who join the project
- Avoid unnecessary reconsideration of the same issues

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Architecture Overview Diagram

Description:

The Architecture Overview Diagram work product is a schematic diagram that represents the governing ideas and candidate building blocks of an IT system or enterprise architecture. It provides an overview of the main conceptual elements and relationships in an architecture, which frequently include candidate subsystems, components, nodes, connections, data stores, users and external systems.

As communication is its main purpose, it is more important for the Architecture Overview Diagram to be simple, brief, clear, and understandable than comprehensive or accurate in all details. Consequently the diagram uses an informal rich picture notation. It typically includes supporting text that explains the main concepts of the architecture.

This type of diagram can be produced at differing levels:

- At the IT system level.
- At the enterprise-wide level

Where alternative architectural solutions are being explored, an Architecture Overview Diagram may be produced for each option to enable various stakeholders to discuss the tradeoffs between the options.

At an IT system level, the Architecture Overview Diagram is produced very early in a project (possibly pre-proposal) and influences the initial component model and operational model. It is not intended that design commitments be based on this overview until the (more formal) component model and operational model have been developed and validated.

Subsequently, the component model and operational model are the primary models, and the Architecture Overview Diagram is a derivable view, which is revised if there are changes to the main concepts and relationships (though it is not intended to reflect detailed design decisions).

At an enterprise level, an Architecture Overview Diagram is often produced as part of an overall IT Strategy. In this instance it is used to describe the vision of the business and IT capabilities required by an organization. It provides an overview of the main conceptual elements and relationships including candidate subsystems, components, nodes, connections, data stores, users, external systems and a definition of the key characteristics and requirements.

Purpose:

The Architecture Overview Diagram work product is used to:

- Communicate to the sponsor and external stakeholders a conceptual understanding of the intended IT system
- Provide a high-level shared vision of the architecture and scope of the proposed IT system for the development teams
- Explore and evaluate alternative architectural options
- Enable early recognition and validation of the implications of the architectural approach

- Facilitate effective communication between different communities of stakeholders and developers
- Facilitate orientation for new people who join the project

At the enterprise level the diagram additionally helps communicate to the sponsor and all stakeholders an understanding of the overall future directions for the IT environment. This understanding will help management decision making about major strategic IT investment, acquisitions and sourcing. It provides a high-level shared vision of the architecture and scopes of potential future IT systems.

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

User Interface Design Specification

Description:

The User Interface Design Specification deliverable describes the sequence of screens (such as windows, dialog boxes, and prompts) the user expects to see and interact with on the system interface. The User Interface Design Specification also includes detailed screen design, objects, widgets, options, menus, buttons, visuals, dialog boxes, button states, screen behavior, user exception handling and error messages, and all user assistance externals including all help text (both online and hardcopy), agents, supporting visuals, and wizards.

The User Interface Design Specification is usually communicated in the form of text, graphics, and tables in a written document or series of Intranet Web pages and sometimes augmented by a high-fidelity prototype, which shows particular interface nuances not easily communicated via the written word or through screen captures. Ideally, the user interface prototype will contain screen layout code and widget interaction in a format that can be delivered to the development team and reused in the development effort.

Purpose:

The primary purpose of the User Interface Design Specification is to provide detailed guidance to the developers concerning how to program the user interface. In addition, the User Interface Design Specification:

- May serve as a contractual specification of what should be developed by a subcontractor
- Is used to document the final version of the user interface and, based on this documentation, end user training materials can be developed
- Is used to define system test cases

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Test Strategy

Description:

Test Strategy is a high-level description of major system-wide activities that collectively achieve the overall desired result, as expressed by the testing objectives. It outlines the approach to be used to ensure that the critical attributes of the system are tested adequately. It starts with a high-level description of the "what" needs to be tested. The Test Strategy includes elements and information that are generic in nature. At this stage these could be generic to an industry, an application or a group of applications. No attempt is made to get specific at this time. The test strategy should be developed early in the project lifecycle during start up time or, preferably, during the Statement of Work or proposal time. It will quite often only describe a generic approach and steps to be taken to ensure the quality of the product.

All strategy statements are expressed in high-level terms of physical components and activities, resources (people and machines), and types and levels of testing; i.e., the stuff of which action plans are made at lower levels. In most situations, these are merely definitions of terms and terminology, used to establish a common understanding and lay the foundation to initiate the next step, which is test planning. Test strategy document includes, at a high level:

- Testing objectives: Set the direction for testing.
- Risk assessment: Initial assessment of business and technical risks from Project Management or from Solution Assurance Reviews.
- Test Focus Areas: Critical attributes of the system to be tested.
- Levels of test: Testing levels based on known standards within the client organization or IBM, or a combined set of both, that reflect levels needed to meet quality criteria defined in the Statement of Work.
- Types of test: Testing types to consider, relating to business functions (Functional Types) or to structural functions (Structural Types).
- Organizational responsibility: Based on project deliverables.
- Entry/Exit Criteria: Defined for different levels and for their importance to project success.
- Tools: Any technology or tools strategy, at the client organization or IBM, relevant to the project.
- Metrics: Any organization, business unit, competency metrics program or measurements strategy relevant to project quality criteria.

It is equally important to note that planning details are NOT included here.

Purpose:

The purpose of the Test Strategy work product is to:

- Define how the appropriate testing principles and practices will be applied in order to mitigate the project risks, manage the testing risks, and identify any exposures.
- Provide a common approach and a common terminology to use for testing across multiple organizational structures and business units.
- Give a general direction for where testing is headed.
- Emphasize the importance of a cost-effective, team approach to testing.
- Describe the complexity of full lifecycle testing.

As a communication vehicle to identify any testing issue early rather than late.

Delivery:

IBM will deliver one (1) copy of this deliverable in reproducible format.

Appendix B: Required Consents

FSH shall be responsible for promptly obtaining and providing to IBM all Required Consents necessary for IBM to access, use and/or modify software, hardware, firmware and other products used by customer for which IBM shall provide services hereunder. A Required Consent means any consents or approvals required to give IBM and its subcontractors the right or license to access, use and/or modify (including creating derivative works) customer's or a third party's software, hardware, firmware and other products used by the customer without infringing the ownership or license rights (including patent and copyright) of the providers or owners of such products.

Customer agrees to indemnify, defend and hold IBM and its affiliates harmless from and against any and all claims, losses, liabilities and damages (including reasonable attorneys' fees and costs) arising from or in connection with any claims (including patent and copyright infringement) made against IBM alleged to have occurred as a result of the customer's failure to provide any Required Consents.

IBM shall be relieved of the performance of any obligations that may be affected by customer's failure to promptly provide any Required Consents to IBM.

Appendix C: Project Change Control Procedure

The following provides a detailed process to follow if a change to this SOW (SOW) is required.

A Project Change Request (PCR) will be the vehicle for communicating change. The PCR must describe the change, the rationale for the change and the effect the change will have on the project.

The designated Project Manager of the requesting party will review the proposed change and determine whether to submit the request to the other party.

Both Project Managers will review the proposed change and approve it for further investigation or reject it. IBM will specify any charges for such investigation. If the investigation is authorized, the authorized representative of the parties will sign the PCR, which will constitute approval for the investigation charges. IBM will invoice FSH for any such charges. The investigation will determine the effect that the implementation of the PCR will have on price, schedule and other terms and conditions of the SOW.

A written Change Authorization and/or Project Change Request (PCR) must be signed by the authorized representatives of both parties to authorize implementation of the investigated changes.

Signature Page

SOW Services

Refer to the "IBM Proposal for e-Business Solution", dated November 2, 2001.

Each of us agrees that the complete agreement between us about these Services consists of 1) this SOW and 2) the referenced Agreement.

Agreed to:

FeeSimple Hosting

Agreed to:

International Business Machines Corporation

By _____
Authorized signature

By _____
Authorized signature

Name (type or print):

Date:

Customer number:

Customer address:

Name (type or print):

Date:

Reference Agreement number:

Customer billing address:

IBM Address: 3200 Windy Hill Road
Atlanta, GA 30339

Project name or identifier:

Estimated start date: January 15, 2002

Estimated end date: February 28,2002

This SOW expires upon completion of IBM's responsibilities

IBM Confidential/FSH Confidential