
Proposal and Marketing Plan

SurMeasure e-Commerce solutions for artists,
custom products producers and professionals.

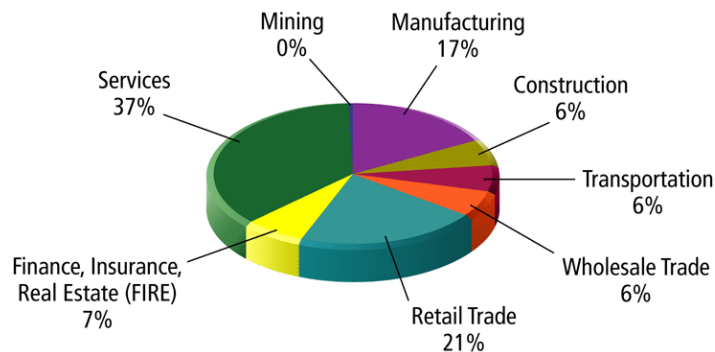
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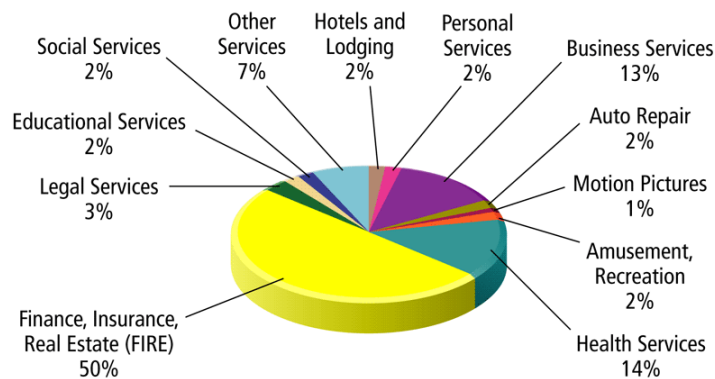
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The Service Sector

- The Service Sector is the largest and most rapidly expanding part of the economies in advanced industrial nations [1]
- Employ 37% of the labor and account for \$1.8 trillion in GDP
- Adding finance, insurance, and real estate services (FIRE), about 44% of labor force works in service delivery and accounts for around \$3.5 trillion or 40% of the entire U.S. economy



Services breakdown



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The Service outline

This proposal is for a project to develop and deploy an e-Commerce hosted application that markets, sells, and supports a domain based e-Commerce application suite for use by artists, custom builders and professionals.

Given our company's experience in providing domain hosting services and active content, it seems natural to extend our commercial ISV e-Business capabilities towards secure Internet e-Commerce services in vertical artistic and professional markets by providing a platform for merchandising talent and specialty products.

The platform also serves as a test bed for technology, standards and ethics while exposing the company to the dynamics of the Internet medium.

Beyond providing the service, licensing the capability to other ISPs and end-user companies desiring to serve and manage the application from their own server.

The platform also provides the opportunity to merchandize our existing e-Business capabilities in the areas of integrated inventory control, supplier control, automated accounting and business reporting.

SurMeasure Services

The Service

SurMeasure will provide domain hosting services with an e-Commerce solution.

The solution platform will provide mime content enabled product/service exhibit and merchandizing while supporting product/service communication threads with the artist in private or public.

The service will offer “opt-in” ontological namespace inclusion for domain products and public threads. Ontologies will be temporally indexed in inversions of /domain/product/author/client/topic.

Target Client

Artists, Custom builders, Professionals

Artists with unique talents crafting original works with the desire to expose and sell their works over the web. This service has a regional twist in that collectors usually like to see and discuss the art form before buying it.

Application Licensing to ISPs

The application will be licensed to other ISPs desiring to offer the service from their domain hosting facilities.

Application Licensing to End-Users

The application will be licensed to end-user entities desiring to serve and manage their own specialty e-Commerce service.

Site Promotion

- Negotiate the placement of links at art-suppliers, guilds, arts and crafts schools, and art exhibits and their web pages.
- Publish articles in popular regional arts journals.
- Advertise or exchange links with professional groups as a service for professionals selling their capabilities and using the list platform for developing specs, negotiating and selling services to prospects.
- Advertise in the paper art section an art review, like "Art Review <http://www.SurMeasure.net/review>".
- Publish an article at [Small Business Information](#) to capture end-user audiences [2].
- Publish and advertise [ISP Guide](#) to capture ISP application licensing audiences [3].

Technology

Hardware platform

The server hardware will be dual Intel P4 with 1GB memory and 2x120 GB hard disk drives.

Operating System

The server operating system will be the current version of RH Linux. [4]

Server platform

The web server will be Apache bound to PHP, MySQL, PostgreSQL, Perl, SSL, and the mail services pop3, smtp, imap.[5]

The mail server will be Qmail [6].

General list services will be provided by Mailman, while domain list services will be implemented in PHP using MySQL [7] and SSL [8] for private threads and payment.

Application software

Application software will be authored in compiled PHP [9] to dynamically generate web pages.

List services will be implemented with Python [10].

Knowledge discovery, application expert state space management, and tutorials will be programmed in Prolog [11] and Logtalk. [12]

Capabilities

- Will offer an on-line tutorial on the features of the service with a hypertexted walkthrough, examples and screenshots
- To Pay for and register a domain and have instant access to interactive e-Commerce generation tools and email account control.
- The artists interface to the e-Commerce solution will be encapsulated by groupware software within the domain a bit like FirstClass with intrinsic Open Office document support.
- All contacts and transactions will be audited to an administrative business email account; all information flowing through the system will be archived, indexed and made available to the artist for download or analysis.
- Buyer/Seller messaging relevant to a product/service will be threaded and accessible to both. Thread privacy status will be determined jointly by both parties and will require mutual consent for public exposure.
- All Buyer/Seller private interfaces to the service will be under SSL.
- The art buyer will have the ability to view the art (if possible a panning and rotation will be provided), he may buy it, or reserve it for physical inspection at the artist's derived and agreed upon price.
- Payments and reserves will be handled with an integrated charge card service over SSL for ISP and artist sales.

Costs

Development

Description	Man-days
Specifications SurMeasure services	5
Specifications Domain services (App)	7
Specifications for remote admin panel	3
Agent modeling RDF/XML	30
Coding and testing SurMeasure	40
Coding and testing Domain services	70
Coding remote admin/diagnostic panel	30
Web Documentation and screen shots	20
Internal Documentation	10
Contracts design	7
Policy design	7
Logo design and graphics	8
Server hardware/software integration	6
Deployment and Internet testing	10
Project administration (2 days/wk) 16 wks	32
Total man-days	285
Total costs at internal rate \$440/man-day	\$125,400

Equipment

Description	Cost
2 - 1U Servers	\$ 5,000
1 mirror development and support server	2,000
Total equipment costs	\$ 7,000

Host Parking

Description	Cost
Rack with 5U capacity and T3 gateway	\$ 250/mo
With 100 GB/month bandwidth and UPS	
Costs first year	\$ 3,000

Maintenance

Description	Cost
Hardware (3 servers) cleaning, backups	\$ 1,500/yr
Software support (OS and App) 1day/wk	22,880/yr
Costs first year	\$ 24,380

Advertising and Insurance

Description	Cost
Weekly adds in papers and trade journals	\$ 5,000
Search engines (3)	2,500
Liability insurance	4,000
Costs first year	\$ 7,500

Costs summary

Description	Cost
Development	\$ 125,400
Equipment	7,000
Parking	3,000
Maintenance and support	24,380
Advertising Insurance	11,500
Costs first year	\$ 171,280

Project costs are mostly development during the 285 man-day interval. The recurring annual costs are about \$ 40,000 per year thereafter.

Revenue

As configured, the host server is about 100 concurrent Apache sessions without swapping; this may be extended by adding more active memory (about 10MB/session).

There is no real practical limit to the number of virtual domains served by a host but field metrics for a P3 750 MHz is about 200 domains. Current technology is at least twice as fast, 300 domains is a practical per server limit. 150 domains may be used as a mean earnings reference.

Zero base

Amortization of development and equipment costs over 24 months is \$ 6,400 per month while recurring costs are \$ 3,300 per month, the total monthly production costs are \$ 9,700.

The zero base from serving 150 domains is \$65 per month per domain while it drops to \$33 when serving 300 domains.

The target price strategy should be about \$50 per month for domain hosting and application service, to achieve this, licensing will be the other source of revenue effectively reducing the amortization costs to a lower zero base.

Deployment schedule

A team of three people four months or the equivalent of twelve man-months.

Marketing

There are three marketing issues in this e-Commerce services project, pre-development marketing, post-development marketing and solution licensing.

Pre-development marketing

The personal contact, this phase begins with asking established artists or entrepreneurs how they presently accommodate sales and identifying methods and problem areas that may be automated, then a cost for the service is introduced to establish project viability. In a way, an established artist may be considered "clicks and bricks" as there already exists an in-place sales and fulfillment method. Emphasis will be made on the privacy and security of SSL communications.

In the services business there is nothing like an actual production demo, so special deals with two or three clients to serve for beta testing may be a desirable deployment strategy.

Deploying an artist domain may start from describing the artist, his/her expertise and previous works then proceeding towards creation and definition of the product or service.

Beta clients will be participating in the development of the system and in the end will result in a solution that tailors their needs. It is desirable to formulate a solution which fulfills the productive needs of diverse artists, for example one always making original works but also those who have a collection or series of custom products.

Post-development marketing

Like an ISV, providing a service to a vertical market means understanding the supply chain (where the artist buys raw materials), the artist and the client. Each has expectations and a way of doing business.

Arts/Materials suppliers

SurMeasure will identify suppliers through participation in arts exhibits and trade shows, an effort will be made to establish affiliate relationships with suppliers, promoting SurMeasure as the place to find artists who consume raw materials.

Artists/Entrepreneurs

Trade journals article on managing web presence and sales with links to SurMeasure.net. Participation in feature articles on an artist.

Attending art school student exhibits and coming into contact with new artists, affiliate relationships with schools and institutions which teach crafts.

Generally staying in touch with the arts community by participation.

Running small newspaper ads in the arts section with the message "Original art on the web www.SurMeasure.net".

Trade journals article on managing web presence and sales with links to SurMeasure.net. Participation in feature articles on an artist.

Attending art school student exhibits and coming into contact with new artists, affiliate relationships with schools and institutions which teach crafts.

The art buyer

The art buying enthusiast will also be exposed to newspaper ads, published exhibits and hyperlinks from SurMeasure. The application software will have facilities to send email notices to existing clients-on-file when there are new product or service updates.

Search engines will be seeded with the primary page of each domain which will be metatagged with key works in both French and English. Keywords will identify the country, province, city and the product/service sold.

I.e. Canada, Quebec, Montreal, stone carving, stone sculpture, abstract stone art, custom stone art.

Permission marketing will be performed for both the service and the hosted domains based on client interest, such that if a new work appears it will be broadcast to a specialty list where responses will arrive at the appropriate artist.

Session cookies will be used to identify both service and domain clients.

SurMeasure web presence

SurMeasure will negotiate an affiliate relationship between the existing 110 hosted domains and their mutual links pages. The main web page will have pulldown menus selecting logo/banner link pages for suppliers, artists, custom builders and others. An effort will be made to avoid front page banners but provisions will be made to display exchanged banners in a user directed web page (suppliers, artists).

SurMeasure and the hosted artist domains will have an affiliate logo and link program.

Solution licensing

Once the solution has been in production for about 6 months, it will be published in trade magazines (eWeek, Information Week, Network Magazine, Canada Business, Optimize) with the intent of selling to ISPs and End-Users desiring to serve it internally.

Future Marketing

Integrate art supplier e-Commerce domain hosting and linking into SurMeasure schema.

Policy, Payment, Security

The Service Business

Providing web solutions is very much a services business, in a way reminiscent of the legacy batch processing service bureaus, except of-course the service is now real-time, at least at POS capture.

Most media companies tender their service on a start-up cost followed by a recurring periodic billing (cell phones, cable TV, internet access, satellite dish, newspaper delivery).

The service provider must be proactive in the area of providing a continued service and must use whatever technology/resources necessary to maintain reliability and quality. Ultimately the service provider's ability to remain reliable will define whether the service will survive and grow.

Policies

Copyrights

The service subscriber (hereafter called "the client") holds copyright to media and information in his respective domain space(s), it will be the client's responsibility to acquire rights to use third party logos and copyright content.

The service provider (hereafter called "SurMeasure") holds technology rights to the service.

Use Restrictions

The client will not engage in the exhibit, sale or promotion of porn other than that which may be represented in a work of art. Any third party qualified complaints to SurMeasure about the hosted domain will result in an email notification to rectify the cause of complaint within a period of 24 hours, conformance failure will result in domain termination without further liability to SurMeasure other than the reimbursement of remaining and prepaid unserved time.

Terms and Conditions of Service

SurMeasure will provide the service upon completion and payment of a 3-month application and web hosting contract, thereafter the client will have the option to extend the service monthly or annually. Automated notification for renewal will be provided by an email containing an extension notice 2 weeks before service period completion. Failure to provide response within the last week of service, an automated email will notify the client of termination of service on the 7th calendar day of the next month. It will be the client's responsibility to recover his domain information with the utilities provided.

Upon termination, the client domain space will be released but the domain name placeholder will remain.

Payment

SurMeasure will maintain a merchant account with Paypal, direct links will be made upon completion of the services contract using the Paypal API which is hosted under SSL and secured by account/password.

- Facilities will be included to provide automated periodic billing subsequent to the initial 3-month deployment.
- Paypal will be directed to provide email credit response to SurMeasure or the hosted domain and shall serve as confirmation of payment and the issuance of an acknowledgement by email to the client.
- A help desk will be provided to respond to both email, web-based or telephone inquiries. Attempts will be made to identify termination conditions before physical de-allocation of domain space.

Security

The web served e-Commerce application

At the solution level in order to minimize delays caused by SSL CA encryption/decryption most product browsing will be served on http, while sensitive information exchanges (bids, counter-offers and business dealings) will be served over SSL. The http and https spaces will be isolated from each other such that sensitive information will remain behind an application layer on the https service tree. The Apache server will be configured to enforce directory level security while navigation within the secure space will be directed and validated against session cookies. Databases will be stored beyond (at a higher level) the http and https served spaces.

Power and UPS

The server farm has diesel fired generators that activate about 30 seconds after a power failure. Each 5 servers in a rack are powered from a UPS remotely controllable from either a secure web-page or telnet control panel. The UPS permits remote power shutdown or power-up of any one of the 5 powered servers. The UPS prevents brownout failure and may power the 5 servers for up to 1 hour without mains.

Server fail-over and redundancy

A cluster of three servers are required to perform redundancy and fail-over.

DNS service

The primary DNS server performs resolution of the served virtual domains. A watchdog process checks name resolution on the active and standby servers. The DNS server also handles email and list services for the active domains server, this keeps message traffic away from the domain server and helps in preventing worm and viral infections.

The active server

When the active server fails, the DNS server will resolve name resolution to the standby server and provide notification.

The active domain server periodically checkpoints domain deltas and rollforward audits.

Weekly DVD recording will be performed on the active server while transaction rollforward replication will be performed dynamically on the standby server over a private IP directory service (another set of lan adapters between the 3 servers).

The server will be configured with 1 GB of main memory to accommodate 100 concurrent Apache sessions without swapping so as to maintain a high threshold to DOS attack.

Technology

SurMeasure System Development Life Cycle

Systems analysis

- Virtual domain hosting of an e-Commerce application.
- Domain mail services (mailboxes, aliases, forwards, autoresponders).
- Public and private web-browsable mime enabled lists pertaining to a work of art, private lists will be originated by the prospective client's interest in the art and will serve as a point of departure in a dialog with the artist while public lists will be originated by the artist to describe the art or respond to issues relevant to private client discussion.
- List support will be provided from a text-only web-page form or through automated mime enabled e-mail to the list (private or public), the artist will be notified by e-mail with links to the product/client thread.
- The ability to submit and maintain a file of products, its description and picture(s), with links to other similar art works by the same artist.
- The ability to transact a reservation, custom-order or sale of an art object or service over end-to-end secure communications with resulting client/seller e-mail notifications, product status updates, and private list product/client thread appends.
- Post-sale custom art progress payment, tracking and artist follow-up list maintenance scheduling via e-mail notification containing hyperlinks to work-in-progress requiring periodic client reporting.

Physical System Design

The solution will be deployed in a single-tier architecture of 3 servers connected to a T3 backbone.

TCP/IP services will be distributed for fail-over processing. The processors will be Intel P4 running the Linux Operating System.

Logical Systems Design

Service requirements

- The automated production and service of a qualified domain name with its supporting structures and services.
- The e-Commerce application served from each domain.
- The application user interfaces (clients).

Building the System

The system will be build in-house using “build from scratch” tools but beta deployed on existing parked servers, production deployment will result in adding 2 servers to the existing 2.

System Testing

Testing will be performed in-house through the intranet with a gateway to a test server. Development order will be application, e-Commerce, and automated production.

Once the application has met requirements testing, it will be deployed on the web for testing by the artists.

As the field testing proceeds, SurMeasure.net e-Commerce selling, payment, automated production will be served using the same application as the one used by the hosted artists.

Implementation and maintenance

Once production testing is completed, the program environment will be copied to the production and backup servers and DNS will be directed to the active server.

Active server updates are replicated to the backup server, the backup server compresses the backup and forwards it to the DNS server for DVD archiving.

The in-house development platform will be maintained as a mirror to the production system to respond to CVS source code maintenance and bug resolution.

Server maintenance will be performed every 4 months on the hardware and weekly on the operating environment (service modules).

Future Considerations

- Integration of automated accounting with buyer/supplier journals and financial reporting as a service.
- Activate OWL ontological namespaces to provide semantic retrieval to existing temporal framesets (public lists, products and services) [13].
- Knowledge discovery and objectives matching agent technology [14].

Ethics, Social and Political (ESP) Issues

Service provider risk

ESP as it relates to Internet Application services providers

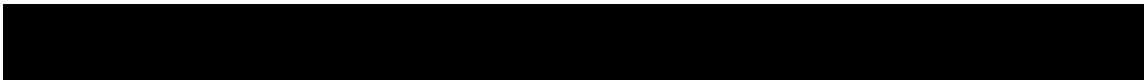
- The current level of Internet regulation and supervision seem adequate to protect the provider from liabilities due to a “shut down” directive.
- Disputes disadvantage the provider with the risk of lost time and revenue. It is in the interest of the provider to resolve third party complaints.
- Responsible for own content and conduct with service users and general viewing public.
- Indirectly responsible for hosted domains content and use.
- Indirectly responsible for application generated content.
- Indirectly responsible for;
 - copyright infringement.
 - trademarks infringement.
 - metatagging and foreign framed pages linking.

Risk maintenance and prevention

- Stay informed about ethics issues, general internet governance and official policies.
- Be precise on policies and regulations about content restrictions and process for conflict/complaint resolution in contracts.
- Follow-through and maintain a supporting trail of qualified actions.
- Qualify complaint, analyze ethical dilemma and forward to domain owner corrective recommendations, remedy and “shut down” date on failure to conformance, copy source.
- Follow through and advice all parties of the supporting action and possible conditions for re-instatement of services.

Participation

- SurMeasure will maintain a social presence fit for general public consumption.
- Clear disclosures will be provided regarding privacy, information collection and “opt-in” “opt-out” options.
- SurMeasure will remain politically neutral in presence and policy with the service subscribers.
- SurMeasure will to conform to global internet standards and regulatory policies (FTC COPPA TRUSTe DMCA WIPO) [15] [16] [17] [18] [19].



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