

EXHIBIT “A”



SERVICES AGREEMENT

This Agreement and all exhibits attached hereto, which are incorporated in their entirety by reference, (collectively, the "Agreement") is entered into by and between Market America, Inc., a North Carolina corporation, whose principal office is located at 1302 Pleasant Ridge Road, Greensboro, NC 27409 ("Client"), and LTech Consulting, LLC, a New Jersey limited liability company ("LTech") whose principal office is located at 4000 Route 66, Suite 110, Tinton Falls, NJ 07753, and is effective as of February 1, 2008 ("Effective Date"). This Agreement governs the services provided under this Agreement. The December 12, 2007 agreement still controls the services performed under that agreement.

By executing this Agreement, LTech and Client agree to be bound by the terms and conditions set forth below.

1. **LTech Services.** LTech shall perform the services set forth in the Statement of Work attached as Exhibit A ("LTech Services"). All work will be performed professionally and in accordance with industry standards.

2. **Term of Agreement.** This Agreement shall remain in effect until terminated by its terms.

3. **Compensation.** Client shall pay LTech the compensation as set forth in the Statement of Work attached as Exhibit A.

4. **Independent Contractor Status.** Both Client and LTech agree that LTech will act as an independent contractor in the performance of its duties under this Agreement.

5. **Assignment.** Neither party may assign this Agreement without the written consent of the other party, except that either party may assign this Agreement in conjunction with the sale of substantially all assets of the assigning party or a controlling ownership interest in the assigning party after 10 days advance written notice to the other party. This prohibition against assignment does not preclude the use of contractors by LTech.

6. Confidentiality.

a. **"Confidential Information" Defined.** "Confidential Information" means any data, materials or information that is not generally known to the public and that is owned or possessed by either party ("Disclosing Party") and is disclosed to the other party ("Receiving Party"), whether in oral, written, digital or other form of disclosure. Confidential Information also includes any third party information which Disclosing Party is required to keep confidential ("Third Party Confidential Information"). Without limitation of the foregoing, the parties agree that the terms of this Agreement constitute Confidential Information (yet the fact that the parties have entered into the agreement and the general nature of the relationship between the parties is not confidential). This agreement may be disclosed by the Receiving Party in proper due diligence processes in business transactions in accordance with industry standards.

b. **"Trade Secrets" Defined.** "Trade Secret" shall mean information owned or possessed by Disclosing Party,

without regard to form, that is disclosed by Disclosing Party to Receiving Party, including but not limited to, technical or non-technical data, a formula, a pattern, a compilation, a program, a device, a method, a technique, a drawing, a process, financial data, financial plans, product plans, or a list of actual or potential customers or suppliers, in any form or format, which is not commonly known by or available to the public and which: (i) derives economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. Trade Secrets specifically include any Confidential Information satisfying the above criteria.

c. **Excluded From "Confidential Information."** Confidential Information does not include any data or information which Receiving Party can demonstrate: (i) was already known to Receiving Party at the time of disclosure; (ii) was independently developed by Receiving Party without reference to Disclosing Party's Confidential Information; (iii) is in the public domain through no fault of the Receiving Party; or (iv) was rightfully disclosed to Receiving Party by a third party without obligation of confidentiality.

d. **Prohibition Against Disclosure and Use of Confidential Information & Trade Secrets.** During the term of this Agreement, and indefinitely thereafter, Receiving Party will not, except as otherwise expressly directed by Disclosing Party, use, copy, or disclose, or permit any unauthorized person access to, any of Disclosing Party's Trade Secrets, except as expressly permitted herein and necessary for accomplishment of activities required hereby. During the term of this Agreement and for a period of two (2) years after termination hereof, Receiving Party will not use, copy, or disclose, or permit any unauthorized person access to, Disclosing Party's Confidential Information, except as expressly directed by such party or as permitted herein. Receiving Party agrees to comply with any confidentiality agreements or the like to which Disclosing Party is a party to the extent Disclosing Party notifies Receiving Party of such agreements and obligations in writing prior to execution of this Agreement.



e. Confidential Information & Trade Secrets Disseminated Only on Need to Know Basis. Receiving Party agrees that it will disclose Confidential Information or Trade Secrets to its employees or agents only as necessary for the performance of Receiving Party's obligations under this Agreement. Prior to disclosing Confidential Information or Trade Secrets to such employees or agents, Receiving Party will verify with Disclosing Party that such employees or agents are subject to appropriate confidentiality agreements.

f. Safeguards Against Disclosure. Receiving Party agrees to use at least the same degree of care to avoid and prevent disclosure of Disclosing Party's Confidential Information and Trade Secrets as Receiving Party uses to prevent disclosure of its own Confidential Information and Trade Secrets, or Receiving Party shall exercise a commercially reasonable degree of care, whichever degree of care is higher.

g. Equitable Relief. Receiving Party acknowledges and agrees that the misappropriation, unauthorized use or disclosure of Confidential Information or Trade Secrets would cause irreparable harm to the Disclosing Party. In the event of any breach of any part of this Section by Receiving Party, Disclosing Party shall be entitled to equitable relief, including but not limited to a temporary restraining order, temporary injunction and/or a permanent injunction. The rights of Disclosing Party under this Section are in addition to the rights that Disclosing Party may have under this Agreement, common law or statutory law.

7. Nonrecruitment/Nonhire. During the term of this Agreement and for twelve (12) months from the termination of this Agreement for any reason, Client shall not: (1) recruit or encourage, directly or indirectly, any LTech employees, agents or independent contractors to leave LTech's employ or discontinue doing business with LTech, or (2) hire any LTech employee, agent or contractor with whom Client had material contact under this Agreement during the 12 month period prior to termination of this Agreement to perform services for Client similar to the services performed by such employee, agent or contractor for LTech while employed or retained by LTech.

8. Notices. All notices, requests and demands given or made pursuant to this Agreement shall be sent by certified mail, registered mail, or private carrier such that the notifying party can prove both delivery of notice and that the recipient received the notice (or refused to receive) and the respective dates thereof. Notices shall be sent to the address above or to any successor address provided by either party.

9. Intellectual Property Rights.

a. Ownership of Intellectual Property. As between the parties, LTech shall own all property (and all rights in registrations and applications related to such property)

which is created by LTech (whether alone or jointly with Client or a third party) pursuant to this Agreement or any statements of work hereunder ("Created Works"), including but not limited to, property subject to protection by intellectual property laws (relating to patents, trademarks and copyrights), laws pertaining to trade secrets or unfair competition, similar laws protecting intangible property (database or information protection laws) and information not protectable by the preceding laws yet otherwise protectable (all of such property being referred to herein as "Intellectual Property"). Additionally, LTech retains all rights to works created prior to the execution of this Agreement or created independently of this Agreement and all adaptations or derivative works therefrom ("Pre-Existing Works"), subject the license to Pre-Existing Works provided by LTech herein. Software code (source, object or compiled) provided by LTech pursuant to this Agreement may include existing software (the "Existing Software") that was developed prior to execution of this Agreement or has been independently developed or is otherwise owned by LTech ("LTech Existing Software") or a third party ("Third Party Existing Software"). As an illustration, and not a limitation, the following constitute Pre-Existing Works: Existing Software, Third Party Existing Software.

b. Equitable Relief. The parties acknowledge and agree that the misappropriation of, unauthorized use of or infringement of Intellectual Property would cause irreparable harm to the owner thereof. In the event of any breach of any part of this Section by either party, the other party shall be entitled to equitable relief, including but not limited to a temporary restraining order, temporary injunction and/or a permanent injunction. The rights of the parties under this Section are in addition to the rights that such parties may have under this Agreement, common law or statutory law.

c. License to Created Works, Pre-Existing Works, Existing Software, and LTech Existing Software. Any Created Works, Pre-Existing Works, Existing Software, and LTech Existing Software which is provided to Client hereunder is provided in accordance with the License below. Any Third Party Existing Software will be provided to Client in accordance with the terms of a separate software license or agreement that Client shall enter into with said third party, at LTech's sole expense. The "License" is a worldwide, nonexclusive, perpetual, fully paid, royalty free license to use, reproduce, display, distribute, perform, and prepare derivative works from the Created Works, Pre-Existing Works and LTech Existing Software without any duty to account to LTech, yet such license is limited to the purpose of Client's internal use to further its business. Client may not sublicense its rights to the Created Works, Pre-Existing Works or LTech Existing Software, and Client may not assign its rights to such Created Works, Pre-Existing Works or LTech Existing Software except in conjunction with the sale of substantially all assets or ownership of Client.

d. Contingency to Grant of Intellectual Property & License. Notwithstanding any term to the contrary in this Agreement,



all grants of ownership under this Section or licenses granted under this Section are contingent upon payment. If Client has paid for a portion of the LTech Services, then Client's license for that portion of the LTech Services and all related Created Works, Pre-Existing Works and LTech Existing Software shall be fully paid and irrevocable as soon as the payment has been made.

e. **Escrow.** Upon Client's request and at Client's sole expense, LTech will escrow all Created Works, Pre-Existing Works and LTech Existing Software provided, created or intended for Client with a third party escrow agent mutually agreeable to the parties and pursuant to a three party escrow agreement. LTech will keep the deposit current with the then-most-current copies of the source code for such Created Works, Pre-Existing Works and LTech Existing Software, including any and all updates, enhancements and releases (the "Source Code"). The Source Code shall be released from escrow to Client in the event that:

(i) LTech materially breaches an obligation under this or any other Agreement in effect between the parties;

(ii) LTech (a) admits in writing its inability to pay its debts generally as they become due; (b) institutes proceedings to be adjudicated a voluntary bankrupt or consents to the filing of a petition of bankruptcy against it; (c) is adjudicated by a court of competent jurisdiction as being bankrupt or insolvent; (d) seeks reorganization under any bankruptcy act, or consents to the filing of a petition seeking such reorganization; or (e) has a decree entered against it by a court of competent jurisdiction appointing a receiver, liquidator, trustee or assignee in bankruptcy or insolvency, covering all or substantially all of LTech's property (which appointment is not vacated within sixty (60) days of the entry of the order of appointment) or providing for the liquidation of LTech's property or business affairs; or

(iii) LTech or its successor discontinues the distribution of any Created Works, Pre-Existing Works or LTech Existing Software.

10. Indemnity.

a. **Mutual Indemnity.** Each party ("Indemnifying Party") agrees to indemnify and hold the other party, its officers, directors, attorneys, employees and agents ("Indemnified Party") harmless from any and all claims, losses, damages, expenses, judgments or other liabilities (including but not limited to reasonable attorneys' fees which are incurred prior to, during or after trial, bankruptcy proceeding or any alternative dispute mechanism, and including but not limited to tax liability, interest and penalties) for which Indemnified Party becomes obligated to pay due to (1) any material breach of this Agreement by Indemnifying Party, its employees or agents, (2) property damage or personal injury caused by the negligent or willful acts or omissions by Indemnifying Party, its employees or agents, or (3) illegal

acts or omissions by Indemnifying Party, its employees or agents.

b. **Indemnity for Intellectual Property Infringement.** LTech shall defend, indemnify and hold harmless, at its own expense, Client and its officers, directors, employees, agents and affiliates, from and against any claim of infringement of a U.S. patent, U.S. copyright, or U.S. trademark asserted against Client by a third party based upon i) Client's use of the LTech Services, or any portion thereof; or ii) Client's use of the Google 8008 Products, purchased from LTech, or any portion thereof, to the extent such claim arises out of or relates to the combination of use of the Google 8008 Products with the LTech Services. If Client's use of all or any part of the LTech Services or the Google 8008 Products is, or in LTech's opinion is likely to be, enjoined due to the type of infringement specified above, or if required by settlement, LTech shall: (i) substitute for the Google 8008 Products or the LTech Services, as the case may be, substantially functionally similar products and programs; (ii) procure for Client the right to continue using the Google 8008 Products and the LTech Services; or if (i) and (ii) are commercially impracticable, (iii) terminate the Agreement and pay to Client a full refund of all fees paid to LTech by Client for the LTech Services and the Google 8008 Products.

11. **Entire Agreement & Modification.** This Agreement represents the entire agreement between the parties as to the matters referenced herein and is not subject to change or modification except by written agreement signed by both parties.

12. **Dispute Resolution.** The parties will attempt in good faith to resolve any issue, dispute, or controversy arising out of or relating to this Agreement. If any controversy or claim arising out of, or in any way related to, this Agreement is not resolved in a reasonable manner, at the request of either party, the matter will be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association. The arbitration will take place in Delaware. The arbitration award will be valid and binding upon the parties, and judgment thereon may be entered and enforced as a final judgment in any court of competent jurisdiction. However, claims for injunctive relief or other equitable relief may be filed in the state or federal courts of New Jersey for an order effective until the conclusion of the arbitration and enforcement of the arbitration award. Furthermore, notwithstanding the foregoing, for claims qualifying for small claims court in New Jersey, either party may sue in small claims court in New Jersey if the good faith effort to resolve the issue/dispute fails after a reasonable time (which reasonable time for the purpose of a small claims court action is no later than 10 days from the date the complainant sends a detailed letter to the other party identifying the complaint and an acceptable solution/cure). The arbitrator and court shall award attorney's fees, costs and expenses to the prevailing party in any arbitration or court proceeding (including small



claims court). The parties agree to initiate arbitration in lieu of appealing any small claims court judgment.

13. Severability. The covenants set forth in this Agreement shall be considered and construed as separate and independent covenants. Should any part or provision of any covenant be held invalid, void or unenforceable in any court of competent jurisdiction, such invalidity, voidness or unenforceability shall not render invalid, void or unenforceable any other part or provision of this Agreement.

14. Termination. Except to the extent provided in any Statement of Work, this Agreement may be terminated by Client, with or without cause, upon not less than 30 days written notice of termination to the other party. In the event Client fails to make any timely payment under this Agreement, LTech may cease performing Services or terminate this Agreement effective upon not less than 30 days written notice to Client, provided such failure is not cured within such 30 day period.

15. Survivability. The terms and conditions of this Agreement that, by their sense and context, are intended to survive the termination, performance or completion of this Agreement shall so survive.

16. Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware without regard to the conflict of laws provisions thereof, and the state and federal courts located in that state shall have exclusive jurisdiction of the parties for the purposes of adjudicating all disputes that may arise under this Agreement. The parties hereby waive all objections to venue and personal jurisdiction in those forums for such disputes and agree that service of process may be made by in accordance with the notice provision of this Agreement.

17. Waiver. No waiver, amendment or modification of any provision of this Agreement or any agreements in connection with such waiver, amendment, or modification shall be valid unless in writing duly executed by both parties. No delay or failure by either party to exercise or enforce at any time any right or provision of this Agreement will be considered a waiver thereof or of such party's right thereafter to exercise or enforce each and every right and provision of the Agreement. No single waiver will constitute a continuing or subsequent waiver.

18. Limitation on Warranties and Cap on Liability.

FOR A PERIOD OF SIX (6) MONTHS FOLLOWING COMPLETION OF THE SERVICES, THE SERVICES AND ALL CREATED WORKS, PRE-EXISTING WORKS AND LTECH EXISTING SOFTWARE PROVIDED TO CLIENT WILL BE IN COMPLETE CONFORMITY WITH (I) THE SOW AND (II) ANY OTHER SPECIFICATIONS MUTUALLY AGREED UPON IN WRITING IN THE FORM OF CHANGE ORDERS EXECUTED BY EXECUTIVES OF CLIENT AND LTECH.. IN THE EVENT OF ANY BREACH OF THIS

WARRANTY, LTECH'S SOLE RESPONSIBILITY, AND CLIENT'S SOLE REMEDY, IS FOR LTECH TO PROMPTLY AND DILLIGENTLY REMEDY ANY DEFECTS AT NO COST TO CLIENT. LTECH FURTHER WARRANTS THAT IT ROUTINELY USES AND WILL CONTINUE TO USE INDUSTRY STANDARD PROCESSES TO CHECK ALL SOFTWARE PROVIDED TO CLIENT FOR, WITHOUT LIMITATION, VIRUSES, TROJAN HORSES, WORMS, AND ANY OTHER SOFTWARE ROUTINES OR CODE DESIGNED TO (I) PERMIT UNAUTHORIZED ACCESS BY THIRD PARTIES, OR (II) DISABLE, ERASE, OR OTHERWISE HARM THE SOFTWARE, DATA, OTHER SOFTWARE OR HARDWARE (COLLECTIVELY, "MALICIOUS CODE") AND THAT SUCH SOFTWARE, WHEN DELIVERED TO CLIENT, CONTAINS NO MALICIOUS CODE. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, LTECH FURTHER REPRESENTS AND WARRANTS THAT SUCH SOFTWARE, WHEN DELIVERED TO CLIENT, WILL NOT INCLUDE, WITHOUT LIMITATION, KEYS, FAIL CODE, PASSWORDS, SOFTWARE ROUTINES, DISABLING CODE, INSTRUCTIONS, HARDWARE COMPONENTS OR ANY COMBINATION OF THE FOREGOING WHICH IS DESIGNED TO INTENTIONALLY DISABLE, PREVENT THE USE OF OR OTHERWISE REPOSSSESS THE SOFTWARE BY ELECTRONIC OR OTHER MEANS. OTHER THAN AS STATED HEREIN, LTECH MAKES NO REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, WITH RESPECT TO THE DELIVERABLES OR SERVICES PROVIDED PURSUANT TO THIS AGREEMENT, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

EXCEPT WITH RESPECT TO AMOUNTS SUBJECT TO INDEMNIFICATION PURSUANT TO SECTION 10 ABOVE, THE MAXIMUM LIABILITY OF LTECH OR ITS EMPLOYEES, AGENTS OR CONTRACTORS (AND CLIENT'S MAXIMUM REMEDY) WITH RESPECT TO SERVICES OR GOODS PROVIDED OR TO BE PROVIDED UNDER THIS AGREEMENT OR WITH RESPECT TO ANY CLAIM OF ANY KIND ARISING OUT OF OR RELATED TO THIS AGREEMENT SHALL IN NO EVENT EXCEED THE TOTAL FEES PAID. IN NO EVENT SHALL LTECH, CLIENT OR THEIR RESPECTIVE EMPLOYEES, AGENTS OR CONTRACTORS BE LIABLE (AND COMPANY SHALL HAVE NO REMEDY) (I) UNDER ANY THEORY INCLUDING CONTRACT OR TORT (INCLUDING NEGLIGENCE AND STRICT PRODUCTS LIABILITY) FOR ANY INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES.

19. Testing and Acceptance. Client shall have no less than TEN (10) days following delivery of each Created Work or other deliverable specified in the applicable Statement of Work to test and accept or reject such Created Work or other



deliverable. All such tests shall be conducted on Client's site and equipment in order to determine whether the Created Work or other deliverable performs according to the Statement of Work and all applicable written specifications and to ensure, among other things, that the Created Work or other deliverable can be effectively utilized in Client's operating business environment, is capable of running a variety of data without failure, and meets the runtimes required by Client. If the Created Work or other deliverable does not conform to the applicable Statement of Work or other written specifications,

description of all outstanding issues to the contrary. Only issues that are related to requirements listed in the Statement of Work can be considered an outstanding issue for the denial of milestone completion.

- If Client does not respond, the milestone will be deemed accepted.
- If client responds with a denial of milestone completion, LTech will provide client with a schedule for prompt remediation and will re-deliver the Created Work or other deliverable to Client. Client shall have the right to test and accept or reject the Created Work or other deliverable according to the same procedure set forth in this section for testing the initial delivery.

Milestone completion and acceptance will be determined by the following protocol:

- LTech will notify Client that milestone has been deemed complete.
- Client will have ten (10) business days to confirm milestone is complete or deliver in writing, via mail/fax, or letter, a denial of milestone completion with a detailed

20. Force Majeure. Neither party shall be liable for any delay or non-performance of any covenant contained herein nor shall any such delay or non-performance constitute a default hereunder, or give rise to any liability or damages if such delay or non-performance is caused by an event of "force majeure." The term "force majeure" means events beyond the reasonable control of such party. All parties shall make a good faith effort to effectuate this Agreement where there is an occurrence of a force majeure during and after the occurrence to the extent commercially reasonable.

MARKET AMERICA, INC

By: [Signature]
(sign here)

Name: Martin Weissman

Title: Executive Vice President

LTECH CONSULTING LLC

Ed Laczynski

By: [Signature] 2008.02.01 11:10:40
(sign here) 05'00'

Name: Ed Laczynski

Title: CTO



Address for and designation of individual(s) to receive notices on behalf of Client:

Attention: _____

e-mail: _____

with a copy to: _____

e-mail: _____

Address for and designation of individual(s) to receive notices on behalf of Consultant:

4000 Route 66, Suite 110

Tinton Falls, NJ 07753

Attention: Ed Leczynski

e-mail: ed@itech.com

with a copy to: Russell Young

e-mail: ryoung@itech.com

**EXHIBIT A****NUMBER: MA0801-A****DATED: February 1st, 2007**

This Statement of Work is between Market America, Inc., a North Carolina corporation, whose principal office is located at 1302 Pleasant Ridge Road, Greensboro, NC 27409 ("Client"), and LTech Consulting, LLC, a New Jersey limited liability company ("LTech") whose principal office is located at 4000 Route 66, Suite 110, Tinton Falls, NJ 07753, and is effective as of the later of ("Effective Date") (a) the date above if the parties have executed a Services Agreement, and (b) the effective date of the Services Agreement.

The terms and conditions of this Statement of Work shall govern to the extent they conflict with the terms and conditions of the Services Agreement or, if no such agreement has been entered into as of yet, the Services Agreement to be entered into by the parties.

For good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, the parties agree as follows and is effective as of the SOW Effective Date.

Client Name ("Client"): Market America, Inc.
Address: 1302 Pleasant Ridge Road, Greensboro, NC 27409
Project manager: Chris Diggs
Telephone: 336.544.6373
Email: chrisd@marketamerica.com
Fax:

LTECH project manager: Jason Keicher
Telephone: 732-481-2281
Email: jason@ltech.com

1. SERVICES

SERVICES PERIOD. Unless otherwise terminated earlier in accordance with the terms of this Agreement, the Services will end on the completion of the Services by LTech, which is estimated to be June 15th, 2008

SERVICES LOCATION. LTECH will provide the Services at LTech corporate offices, located at 4000 Route 66, Tinton Falls, NJ, USA.

2. CLIENT RESPONSIBILITIES

Client will provide all technical expertise and assistance for LTech perform its services in a timely fashion. Client will provide all design, styling, formatting, and graphic assets in a "web-ready" format (i.e. HTML, CSS, JPG/GIF/PNG) for integration into the solution. Client will provide one lead project manager that will be LTech's key contact for the project. Client will provide technical resources to contribute and lead specific components, as described below in the solution.



3. MARKET AMERICA NEXT GENERATION SEARCH AND MERCHANDISING SOLUTION

The Market America Next Generation Search and Merchandising Solution ("NextGen") will be designed and developed by LTech, in concert with MarketAmerica's technology and business teams. The goal of NextGen is to provide a fast, comprehensive, and user-friendly search and merchandising experience for MarketAmerica's customers and administrators. The solution will leverage the speed and power of the Google Search Appliance (GSA) platform to deliver relevant search results in a variety of formats and zones to empower MarketAmerica users with up-to-date and on-target product information. The GSA will generally serve search responses in sub one-second time frame.

Development efforts will be made keep Internationalization functionality (multi-language and multi-country) of each system in mind as it is developed. This will include content, labels, data, etc. LTech will make best efforts to review, propose, and implement a Proof of Concept (POC) for multi-language and multi-country functionality with out materially effecting the time frame for delivery of Phase 1.

NextGen will be comprised of the following modules:

1. DataHub
2. Product Content Service
3. Merchandising Service
4. Administration Application
5. GSA Feed Application
6. GSA Bridge
7. MarketAmerica Website

3.1 Software Architecture

LTech proposes the following architecture for the solution:

1. DataHub

- **Description:** The DataHub is a robust persistence layer designed to merge, mash, and normalize all Market America product data. It is designed to be queryable, and extendable to allow for the evolution of categorization and product attributes.
- **Software:** C# console application, scheduled via Automate (from Network Automation)
- **Persistence:** SQL Server 2005 on dedicated hardware
- **Configuration:** XML based configuration, deployed in development, staging, and production environments

2. Product Content Service

- **Description:** The Product Content Service provides a single point-of-contact for any product consumer application (in this solution, the GSA Feed Application). It will be a read-only service.
- **Software:** C# XML web application, with on-demand access
- **Persistence:** via DataHub
- **Configuration:** XML based configuration, deployed in development, staging, and production environments

3. Merchandising Service

- **Description:** The Merchandising Service provides a single point-of-contact for any merchandising configuration (i.e. Zone Management, Best Sellers, comparison shopping, etc). It will be a read-write service.



- **Software:** C# XML web application, with on-demand access
- **Persistence:** SQL Server 2005, same instance as DataHub
- **Configuration:** XML based configuration, deployed in development, staging, and production environments

4. Administration application

- **Description:** The Administration application provides an interface for the administration of feeds and merchandising. It also allows the viewing and querying of product content from any source. For Phase I, the application will be comprised of a simple interface that will allow for basic CRUD (Create Read Update Delete) functionality only.
- **Software:** C# ASP.NET web application, with on-demand access
- **Persistence:** Via Services
- **Configuration:** XML based configuration, deployed in development, staging, and production environments

5. GSA Feed application

- **Description:** The GSA feed application manages the scheduling, updating, and deleting of product content from the GSA(s) used in the solution.
- **Software:** C# console application, scheduled via AutoMate
- **Persistence:** Via Services
- **Configuration:** XML based configuration, deployed in development, staging, and production environments, in addition to GSA configuration

6. GSA Bridge

- **Description:** The GSA bridge provides the interface for the MarketAmerica website to query for search results, zone data, comparison-shopping, etc.
- **Software:** Java / CFM
- **Persistence:** Via Services
- **Configuration:** dependent on current MarketAmerica configuration standards

7. MarketAmerica Website

- **Description:** Changes will be made on the MarketAmerica.com website to incorporate the GSA Bridge. The current Mercado system will be eliminated, replaced with the NextGen Solution. There will be five contact points for change/integration with the GSA Bridge. Market America will be responsible for integration into other sites
 1. Search Results Content Zone
 2. Search Result Faceted Search (GSA counts) Page
 3. Merchandising Zones
 4. Product Comparison Page
 5. Product Detail Page.
- **Software:** Java / CFM
- **Persistence:** via Bridge, preexisting architecture
- **Configuration:** dependent on current MarketAmerica configuration standards.

3.1.1 Architecture Diagrams




- On Following Pages:






Market America DataHub

Prepared By LTech Consulting 2008

Raw Data Feeds



Market America Products

Partner & Affiliate Products
XML, CSV, Flat Files



Process Ingests Data In Raw Format
 Responsible for clientscheduling management
 Raw Segmentation By Vendor
 Raw Data In Generic Product Format(TBD)

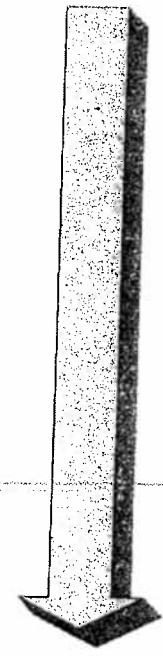


Data Processed Into Normalize/Optimized format
 Product Categorization performed
 Product Comparison data setup
 Uniqueness/Freshness
 Chain of Data Transformers for expansion




MarketAmerica DataHub


-  Scheduled Process
-  SQL Server2005




MarketAmerica DataHub



Normalized Product Data



Merchandizing Data



Normalized/ Optimized Datastore
 Flexible Attribute System
 Persistent/ Queryable/ Extendable

Product Content Service

Merchandising Service

GSA Feed

Admin Application

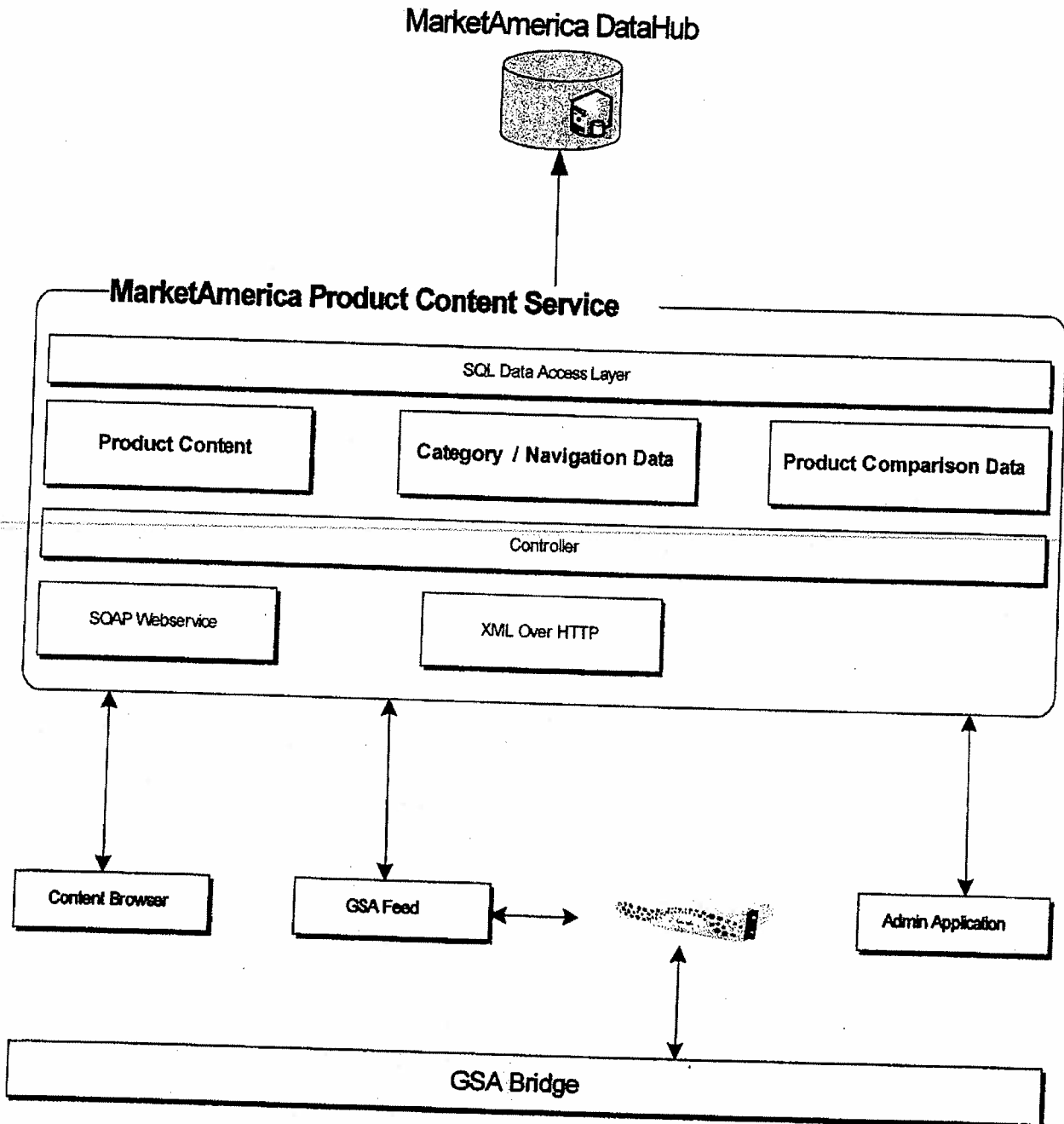
GSA Bridge

 MarketAmerica.com



Market America Product Content Service

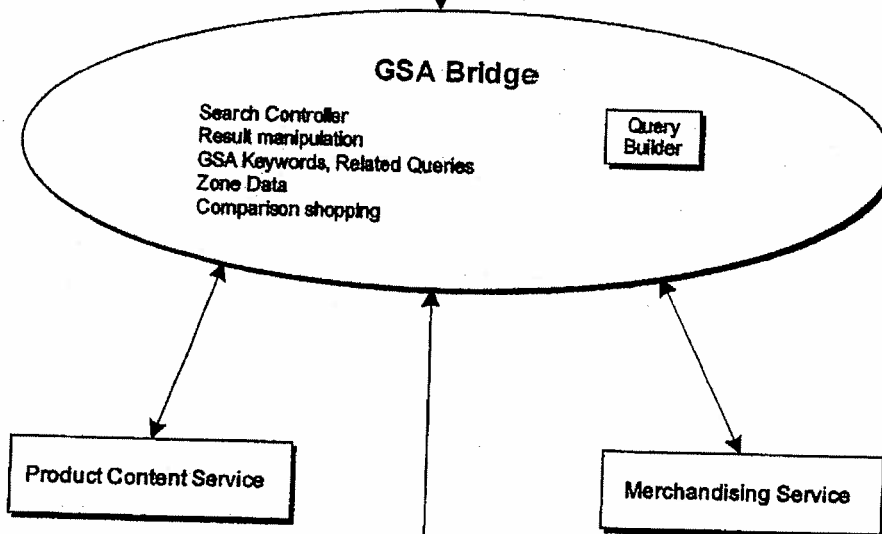
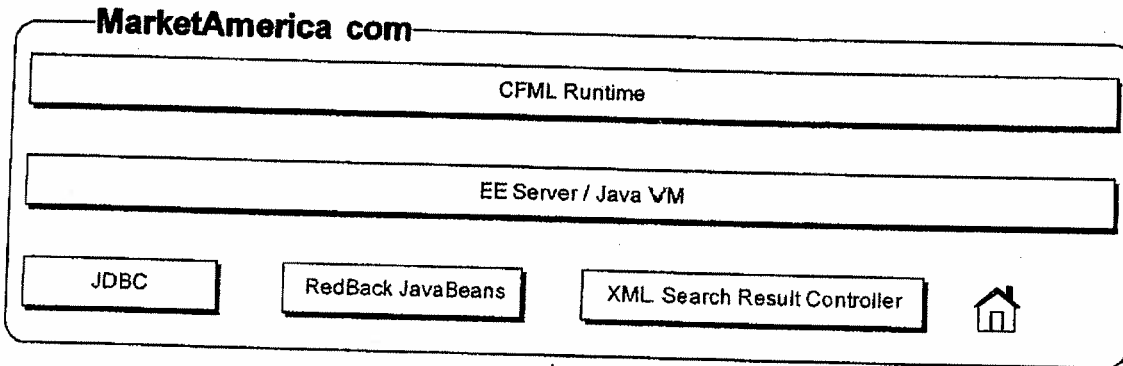
Prepared By LTech Consulting 2008





Market America GSA Bridge

Prepared By LTech Consulting 2008

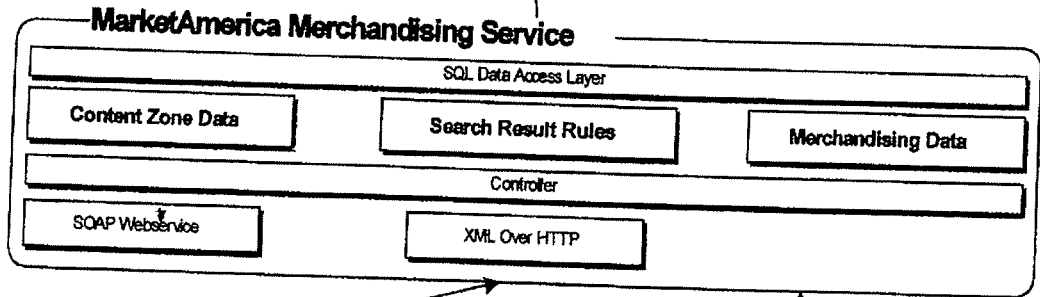




Market America Merchandising Service

Prepared By LTech Consulting 2008

MarketAmerica DataHub Merchandising Data



Zone Management

Zone rules will be defined and stored via Admin system
 Merchandising Service will transform rules into valid GSA query extensions
 GSA bridge will cache rules and append to user queries
 Approval and Time constraints managed here

Zone	UPC	Vendor	Manufacture
Best Sellers	null	Target com	null
Recommended	null	null	Addidas
What's New	123456	null	null

Search Result Manipulation

Result bumping rules will be defined and stored via Admin system
 Merchandising Service will return rules for use by GSA Bridge
 GSA bridge will manipulate search results based upon rules
 Approval and Time constraints managed here

Rule	MetaName	Value	Priority
MA products	Vendor	MarketAmerica	
Addidas Campaign	Manufacture	Addidas	
Target Campaig	Vendor	Target com	





3.2 Requirements Specification

Based on the initial kickoff meeting and follow-on conversations, LTech has identified the following requirements to be in scope for this Phase I of NextGen, or to be capable of future development in subsequent phases:

Phase 1

Req Id	Description
DataHub Raw Data Manager	
DH001	DataHub Raw Data Manager (File Drop Trigger) - Configure Automate to respond to time triggers and file drop triggers to process files - System will assume separate folders for each partner in production system and process files in a folder, then move to archive.
DH002	DataHub Raw Data Manager (FTP Trigger) - Configure Automate to FTP (Get) files from partners
DH003	DataHub Raw Data Manager (HTTP Trigger) - Configure Automate to HTTP download files from partners
DH004	DataHub Raw Data Manager (Main) - Develop C# <i>Multithreaded</i> console application that will be called from Automate with a Feed Type to Ingest the appropriate Data In Raw Format. - C# .Net 2.0 console application, scheduled via Automate (from Network Automation)
DH005	DataHub Raw Data Manager (Zip) - Must support unzipping of files
DH006	DataHub Raw Data Manager (Doc Count) - Phase 1 up to 10 million products to coincide with Phase 1 GSA purchase
DH007	DataHub Raw Data Manager - must support multiple languages - GSA supports this - Data model will use Unicode encoding to support this.
DataHub Data Processor	
DH101	DataHub Data Processor (Main) - Develop C# <i>Multithreaded</i> console application that will be called from Automate to process all waiting raw data - C# .Net 2.0 console application, scheduled via Automate (from Network Automation)
DH102	DataHub Data Processor (Uniqueness/Freshness Transformer) - uniqueness / freshness determined for optimized feeds to GSA - "Push to GSA" flag will be set during processing
DH103	DataHub Data Processor (Categorizer Transformer) - Phase 1 – Categorizing will be performed by mapping Vendor categories into MA master categories - Master category mapping to be supplied by MA. - Phase 1 functionality will be a 1 to 1 mapping from Vendor category to MA category. - Categories/mapping exceptions will be stored for later querying
DH104	DataHub Data Processor (Categorizer Transformer – Exception Report) - Phase 1 – store results of product categorization to be reported on. (Exception report) Exception Report Exception reporting needs to show: 1. New or Missing Categories 2. New or Missing Brand 3. New or Missing Store 4. Missing pricing



	<ul style="list-style-type: none"> 5. Missing buy URL 6. Missing Cross reference 7. Missing image URL
DH105	DataHub Data Processor (Category Counts) <ul style="list-style-type: none"> - Develop process to build and cache master category counts nightly. - 2 possible solutions: 1- build counts during Data processing. 2- separate process to build counts and store results.
DH106	DataHub Data Processor (Product Comparison Transformer) <ul style="list-style-type: none"> - Phase 1- Simple product comparisons - UPC code - Brand + ProductID - Manufacturer + Manufacturing part#
Data Model / Database	
DM201	Setup and Configure Clustered SQL Server 2005 Enterprise Edition for Production <ul style="list-style-type: none"> - Setup database to accommodate data and performance requirements
DM202	Setup and Configure Additional SQL Server 2005 Enterprise Edition for Dev, Stage, QA, etc as needed <ul style="list-style-type: none"> - Setup database for different environments as needed
DM203	Design and Implement ER Model for MarketAmerica DataHub <ul style="list-style-type: none"> - Design ER model to store data in various stages defined in requirements above - Performance tune DB to handle expected volume of data
DM204	ER Model - Product / Banner Rules <ul style="list-style-type: none"> - Design structure and queries to represent Product and Rule based structure
DM205	ER Model - Dynamic Category Tree <ul style="list-style-type: none"> - Design structure and queries to represent Dynamic Category Tree - Phase 1 Master Category tree delivered by Otto of MA on 1/17/08 - related to DH103
DM206	ER Model - Vendor Category Mapping <ul style="list-style-type: none"> - Design structure and queries to represent Vendor/Partner <-> MA Master Category mapping - will be used during Categorization process - related to DH103
DM207	ER Model - Product Comparison Data <ul style="list-style-type: none"> - Design structure and queries to represent Product Comparison Data - Volume of products makes caching of product comparisons necessary
DM208	ER Model - Exception Reporting / Logging <ul style="list-style-type: none"> - Design structure and queries to represent Processing Exceptions - Design structure and queries to represent Search Tracking
DM209	XML Schema - Full MA Search Result Set <ul style="list-style-type: none"> - Design XML Schema to define the MA Search Result Data payload - base schema will be GSA resultset - additions to handle Zones, product manipulation, guided nav, etc. - SEE [GB803]
DM212	ER Model - Multiple Site Support <ul style="list-style-type: none"> - All Merchandising rules in the system will be marked with a "Country" and "Site" and "Language" tags to differentiate them among the various MA properties. - Product data itself will be available to any consumers of the PCS
GSA Feed	
GF301	GSA Feed Application Develop System to Feed Formatted / Categorized Product data into the GSA on a scheduled basis <ul style="list-style-type: none"> - C# .Net 2.0 console application, scheduled via Automate (from Network Automation)
GF302	GSA Feed Application (New Products) <ul style="list-style-type: none"> - App will accept "New" flag to query and push all "new" products to GSA
GF303	GSA Feed Application (Updated Products) <ul style="list-style-type: none"> - App will accept "Update" flag to query and push all "updated/changed" products to GSA



GF304	GSA Feed Application (Deleted Products) - App will accept "Deleted" flag to query and push all "deleted" products to GSA (to be deleted from GSA)
GF305	GSA Feed Application (Per Vendor Products) - App will accept "Vendor + Vendor Id" flag to query and push all products from the Vendor to GSA. - used for manual pushes of certain feeds to GSA
GF306	GSA Feed Application (Per Category Products) - App will accept "Category + Category Id" flag to query and push all products from the Category to GSA. - used for manual pushes of certain feeds to GSA
Product Content Service	
PC401	Product Content Service Develop Application Service to broker product data to various systems and components - C# .Net 2.0 XML web application – SOAP or REST
PC402	Product Content Service (CRUD) - Basic Product CRUD (Create, Update, Delete) - Includes category, title, descriptions, keywords, stores, (all the fields in DB) - There will be no versioning of live data. - When a product is updated manually, a "do not overwrite" flag will be set so the processor /feed will not overwrite the changes.
PC403	Product Content Service (Query Bridge) - Basic Product Retrieval - By Vendor, By Category, By date ranges, By "Load Request" etc. - Used from GSA Feed, Content Browser, etc.
PC404	Product Content Service (Product Comparisons) - Product comparisons will be done by GSA through GSA bridge.
Merchandising Service	
MS501	Merchandising Service Develop Application Service to broker merchandising data and rules to various systems and components - Zone Data, search result manipulation rules (defined below) - C# .Net 2.0 XML web application
MS502	Merchandising Service (Search Result Manipulation Rules - Each expanded below) - Rules will have 5 main elements: Trigger, Rule definition, Action, Priority - Trigger – based on search keyword. Ex: keyword = "OPC-3" or Always - Rule Definition – defines search result matching or query addition options - Action – push up in resultset, push down in resultset, remove from the resultset, add to the resultset or <i>redirect to URL</i> (redirection will be handled by the web layer, see MW920) - Priority – defines the order in which rules should be applied
MS503	Merchandising Service (Search Result Manipulation TRIGGER Types) - Search Keyword(s) – allow multiple keywords and phrases for same rule - Linguistics will be entered manually for each rule for Phase 1, because GSA will be handling search term stemming. - Canned Searches for Landing Pages and Home Page – an attribute called "page" will be available for specifying rules that will affect page specific canned searches. For implementation, the web site will contain a hardcoded search, passing along a "page" value that can be matched against to process these rules.
MS504	Merchandising Service (Search Result Manipulation RULE Definition) - Based on name/value pairs, Phase 1 data elements only. - For result matching must support both "equal" and "contains". - Ex: If Vendor=MarketAmerica
MS505	Merchandising Service (Search Result Manipulation ACTIONS) - Push up, push down - Remove from results - Add to query (this will add the given name/value pair to the GSA search query) - Add to results (choose specific products to add to results) - Redirect to URL/Landing page (bypass search results)
MS506	Merchandising Service (Search Result Manipulation PRIORITY) - defines priority when a given search results in more than one rule being activated
MS507	Merchandising Service (Zone Manipulation)



- Phase1 - 2 Zones – Best Sellers and Recommended
- Rules will have 3 main elements **Trigger, Rule, Action**
- **Trigger** – based on search keyword. Ex keyword = "OPC-3"
- **Rule Definition** – add to query or define specific products
- **Action** – add to GSA query or statically define products to display.
- If no products are define for each of the zones the 4 top products returned in the search should be shown in the zones

Admin Application

AD601	Admin Application Develop interface to allow manipulation of merchandising rules, feeds, and reporting. - C# .Net 2.0 web application
AD602	Admin Application (Merchandising Service) - Admin system will support the editing of rules defined above in the Phase 1 Merchandising Service - Search Result Manipulation Rules - Zone Manipulation
AD603	Admin Application (Product Content Service) - Admin system will support the features of the Phase 1 Product Content Service defined above - Basic CRUD - Query Bridge
AD604	Admin Application (Search for Rule) - Admin system will support searching for a rule.
AD608	Admin Application (Reporting) - Admin interface to report on search statistics From Req GB808 - Phase 1 – search terms and result counts [pulled from GSA, link to report]
AD613	Admin Application (Vendor Category <-> MA Category) - admin system to manage Master Category mapping to Vendor Category
AD614	Admin Application (Edit MA Category tree) - admin system to manage Master Category mapping to Vendor Category
AD615	Admin Application (Security/Roles) - System will require login - System will support concurrent logins. - If two users are working on the same data, the users that saves data last will win - Phase1 – 2 roles (Full, Read-Only)
AD617	Admin Application (Banners – Rules) - Admin system will link to banner system (see BM701)
AD618	Admin Application - Admin system UI design will be based upon existing Mercado system wherever possible.
AD619	Admin Application - Multiple Site Support - All merchandising rules in the system will be marked with a "Site" data element to differentiate them among the various MA properties. - All admin screens will support a "site" marker on appropriate entities.

Banner Manager

BM701	Banner Management (4 Zones) - LTech will setup and configure Absolute Banner Management System http://www.xigla.com/absolutebm/ - Ltech will configure 4 zones for each site channel. (Channel = Search Results, Homepage, etc.) - MA to supply channel list to Ltech. - ABM will be used to upload and manage banners (images, flash, etc)
-------	---

GSA Bridge

GB801	GSA Bridge Develop middleware library to bridge the GSA, New MA Services, and ColdFusion developed website
-------	--



	<ul style="list-style-type: none"> - Result manager - goal is to ultimately return XML result set to limit CFM web changes required - Query Builder - help in formatting GSA queries - Product Content Service and Merchandising Service managers - GSA result format will be baseline of XML schema. Additions will be made to incorporate MA specific info into it. See DM209 - Java/J2EE
GB802	GSA Bridge (GSA Query Builder) <ul style="list-style-type: none"> - Develop library to assist in building and managing GSA queries - manage partial and full meta tags - manage sorting options - manage collections - manage filtering (GSA filtering)
GB803	GSA Bridge (Search Result Manager) <ul style="list-style-type: none"> - MS rule querying/caching - will use MS to access rules - Result manipulation - apply MS rules to results - Rules defined above in See MS501 - MS508
GB804	GSA Bridge (Zone Manager) <ul style="list-style-type: none"> - MS rule querying/caching - will use MS to access Zone rules - Zone management - use rules and queries to build zone product set - merge into MA Result Schema - Rules defined above in See MS509 - MS510
GB805	GSA Bridge - Search Type Support (Phase 1) <ul style="list-style-type: none"> - Keyword search - Category search and navigation (Phase 1 categories) - Store - Item # (SKU) - Dynamic navigation (successive refinement with dynamic categorization) (Phase 1 categories - limited to GSA result limit) - Country
GB806	GSA Bridge - Faceted Search Develop library and process to group and count results based on predefined metadata. This includes brand, store, MarketAmerica category and subcategory only. <ul style="list-style-type: none"> - traverse search results and build groups of counts to allow for drill down search - Group counts limited to GSA results and GSA result count limits. Up to 1000 results deep depending on performance testing and acceptance. - Groups will be flat list of categories with counts. Hierarchical group counts will not be supported for phase 1. - return counts in separate XML data fragment
GB807	GSA Bridge - Resultset Sorting <ul style="list-style-type: none"> - library must support GSA sorting (through query builder) Date and relevance - library must support custom sorting (done through custom code on any returned field) - limited to most relevant results (1000 result limit)
GSA Config	
GB820	GSA Linguistic Rules (GSA Query Expansion) <ul style="list-style-type: none"> - Phase 1 - Configure custom stemming and stop words in GSA - limited to GSA features - For performance purposes, linguistics rules will be handled by GSA for Phase 1, features found here. http://code.google.com/apis/searchappliance/documentation/50/help_gsa/serve_query_expansion.html
GB821	GSA Keywords <ul style="list-style-type: none"> - Configure keywords and related queries in GSA
GB822	GSA Reporting/Analytics Analytic information useful for deciding how best to tune search results <ul style="list-style-type: none"> - Phase 1 limited to GSA reporting interface and features
MarketAmerica.com Website	
MW901	MarketAmerica.com Website General Info <ul style="list-style-type: none"> - Ltech will provide consulting support for the MA Website requirements. - Ltech will provide stubs for all services so the MA website work can begin in a timely fashion - MA will be responsible for all website deliverables.
MW902	Search Results Content Zones



	- alter current MA website to incorporate new search results
MW903	Search Result Guided Navigation (Faceted Search) - change current MA website to incorporate faceted search results (category counts – limited to GSA results and result limit) - new UI design necessary
MW904	Merchandising Zones - alter current MA website to incorporate new Merchandising Zone results
MW905	Product Comparison Page - develop page(s) to use Product Content Service for basic comparison shopping
MW906	Product Detail Page - change current MA website to incorporate new master product data store
MW907	Home Page Category Navigation "MarketAmerica will design, development, and integrate the category navigation. These categories will be hardcoded into the navigation in the web layer."
MW920	Redirection The web tier will execute all redirection rules. Redirection rules will be passed to the GSA Bridge for consumption by the web tier..
MW921	Store Highlighting The web site will show the partner stores at the bottom of search that relate to the item they searched. This data will be available in the results returned from the GSA bridge.
Misc Requirements	
MISC01	Log4Net Support - All applications and web services will be built with log4net support for dynamic logging and alerting http://logging.apache.org/log4net/
MISC03	Performance testing - LTech will perform load testing to ensure the solution meets MA performance requirements.

Phase 2

Req Id	Description
Phase 2 Items	
P201	DataHub Data Processor (Categorizer Transformer) - Phase 2 – Advanced categorization based upon description keyword matching and inference based on previously categorized products
P202	DataHub Data Processor (Product Comparison Transformer) - Phase 2- Advanced product comparisons - Product description hashing and keyword matching technique
P203	Merchandising Service (Search Result Manipulation TRIGGER Types) - Phase 2 - For Performance reasons, the following triggers are moved to phase 2. - Results: This trigger enables the rule to fire according to the results, and not according to specific query. For example, if most of the results are from the Fashion department, regardless of what the customer was searching for or navigating to then the rule will fire and continue with the rule actions like promoting a specific brand.
P204	Merchandising Service (Zone Manipulation) - Phase2- 2 new zones (Hot Deals and New Items) - Zones will be filed based on application statistics
P205	Admin Application (Lingulstic Rules)



	<ul style="list-style-type: none"> - Phase 2 – move to custom solution if needed and performance implications allow it - Linguistics Similar Terms Rules - if a customer types in "active shoes" we also want to show results for "sneaker". We can make a linguistics rules that creates an association between active shoes and sneaker so that they are either equal in status or similar in status. Linguistics associations are very useful when your product descriptions cannot include certain words. - Linguistics Don't Associate Rules - If there is an association made between 2 words, we need the ability to break the association so that noise is not returned. For example, if someone types in Prime, we want to show our Prime products. But if there was an association of Prime with Primer, Primer could potentially show before our products and bring a lot of noise. We want to minimize noise by breaking the association. - Linguistics Keep Original Rules - This is valuable when you have brand names that possible look like a misspelling of another word. Such as our product Feminene. It looks like a misspelling of Feminine. We don't want to direct the customer elsewhere, we put in that if a person searches on Feminene to keep the original spelling and only bring results for that product, not other products with the word Feminine. - Linguistics Common Phrases - the ability to tell the search to search for a specific selection of a phrase. For example baby doll, search only for the two words as a phrase, don't search for just the word "baby" and just the word "doll".
P206	Admin Application (Grouping Rules) - Phase 2 –ability to group rules into named entities for security and reporting purposes..
P207	Admin Application (Rule approval) - Phase 2 –ability for rules to be in "pending" state and be approved and rejected by admin
P208	GSA Bridge - Search Type Support (Phase 2) - Spanish and Chinese - Phonetics - Search as you type (Ajax support)
P209	Shopping Cart Integration - alter shopping cart to access new DataHub / PCS
P210	Hierarchical Navigation (Pre-search) - design system to represent hierarchical category system - design tree-like interface to user to allow user to drill down into categories before issuing a search - MA defined category data is a prereq
P211	Multi-Country/Multi-Lang Support 1. We require that Spanish and Mandarin (Traditional Chinese) be supported. We have supplied data and we will need a proof of concept at the bare minimum for Phase 1.
P212	Admin Application (Product Comparison Shopping) - Phase 1 will be live queries to the GSA for "related products" on fields defined in DH106 - Phase 2 will introduce a data model, admin screen, and altered query logic to allow for "manually entered" related products. Page Templates – For example creating a "Motives" page where the background color could be changed.
P213	GSA Bridge – Search stats logging - library will support basic search stat logging - search params and result counts (one row Related Documents – For example if there is a study on OPC-3, we could have a rule created to display a pdf file of that study in the page. This could include any file types.
P214	MVT Rules – Example, the ability to have multiple banners for the same product, and rotate them to test what customers respond better to. When this is implemented a new report need to be included to show impressions, click through rates to determine which strategy works the best and make it a "traditional" business rule.
P215	Business Rules, multiple languages – the ability to create business rules in multiple languages.
DH107	DataHub Data Processor (Dynamic Attribute Engine) (OA) - Data from each product will be put through a dynamic attribute engine - Each attribute will have a rule associated with it - Each attribute/rule will be defined as "Boolean", Text, or "Range" - Example: RAM: "range" attribute – 1-2GBs, 2-4GBs, etc. - Attributes will be delivered by MA prior to start.



	- Automatic categorization based on regular expression patterns (keyword, wildcard matching)
DM210	ER Model – Dynamic Attribute System (OA) - Design structure and queries to represent dynamic attribute system - Each attribute will have a rule associated with it. - Each attribute/rule will be defined as "Boolean", Text, or "Range" - Example: RAM: "range" attribute – 1-2GBs, 2-4GBs, etc. - Attributes will be delivered by MA prior to start.
DM211	ER Model – Approval based Model for Merchandising rules - Design structure and queries to represent multiple states of a rule - for "Pending/Approval" system in Admin
MS502.1	- Schedule – defines start and end time of rule
MS503.1	Trigger Rules Always (Always Applied) - Results Count (<, >, =)
	- Set category navigation and cross reference - The web merchandisers need to have the capability of setting the navigation displayed on the page where the visitor lands. So promotions and setting of navigation displayed on the page needs to be part of the admin tool for the web merchandisers. See example from the Amazon page where they show trends, exclusive deals, etc. web merchandisers need this capability to create these.[PHASE 2]
	Capability of reviewing/editing/add/delete Hot Deals, New Items, Top Sellers, Recommended Products, Related Products - Before the business rule creation is done the web merchandisers need the ability to customize the product display on areas such as Hot Deals, New Items, Top Sellers, Recommended Products, Related Products from what is defaulted to show up. The merchandisers should have the ability to pull by brand, keywords, product type, store, etc and flag different products/brands/etc to show up on inside these areas. For example if we were to create a business rule for digital cameras the digital cameras from STAPLES would already be flagged to show first. [EXCLUSIONS/INCLUSION OVERRIDES ON MATCHING RULES** SCOPE IMPACT]
AD606	Admin Application (Schedule) - Must be able to schedule rules - Manual enable/disable a rule - Start/End date and time - Recurring daily / weekly
AD607	Admin Application (Simulate Rule – Search Result Manipulation) - admin interface to test a merchandising rule. - will run GSA search apply rules and display results in plain format. - will not be integrated into website, just plain search results with no formatting.
AD610	Admin Application (Audit) - Admin system will keep an audit trail of actions and users - basic log viewer interface
AD611	Admin Application (Alerts) - fire email alerts for upcoming scheduling events: - a rule expired - a rule start - a rule is about to start - processing rule exceptions
AD612	Admin Application (Alerts) - Alert history can be viewed. Search by type and date.
AD616	Admin Application (Security/Roles) (OA) - Site/Section based user entitlements - Rule approval – rules must be setup for "approval" feature - See REQ DM211
AD620	Admin Application – Save as / Copy a rule - admin system must have the ability to "Copy" a rule to a different name so the rule does not have to be started from scratch.
MISC02	Product Audit History:



	Save all manual changes to a "backup" to allow for web merchandisers to replace changes with backups. [version]
AD809	Admin Application (Reporting - Export) - reporting interface will support exporting report to excel (Excel Writer purchase probable) - http://officewriter.softartisans.com/

3.3 Hosting and Deployment

The NextGen solution will be hosted in MarketAmerica's current hosting environment. In addition to the Google Search Appliance cluster (specified below), the solution will require an instance of SQL Server 2005 on Windows Server 2003 for the DataHub. The server should be configured as follows:

SQL Server configuration:

Production Database Cluster:

2 x Compaq DL385 G2

Specs:

2x Intel Xeon (Dual Core) 2.2GHZ 4MB L2

8GB RAM

2 x 73GB Ultra 2 SCSI 15,000 RPM RAID 1 (73GB available)

Dual Power Supply

Dual NICs

Windows 2003 Enterprise 64 bit

MS SQL 2005 Enterprise 64 bit

MSA 1000

(Drive sizes for example purposes only. Actual space needed TBD)

Specs:

2 x 36 GB SCSI RAID 1 – Quorum (For Cluster) (36GB available)

8 x 300 GB SCSI RAID 0+1 – SQL Data (1117.58GB GB available)

4 x 146 GB SCSI RAID 5 – Backups (600GB available)

Ltech recommends a similar single (non-clustered) machine each "Non-Production" environment (Dev, Testing, QA, etc). The additional services and application components described above can sit on the same hardware as SQL Server 2005, for additional scalability an additional set of dedicated Windows Server 2003 servers can be provisioned with the following configuration:

App Server configuration

1 HP ProLiant DL380

Dual 3.0 GHz Pentium 4 Xeon

4GB RAM

2 x 73 GB Ultra 2 SCSI 10,000 RPM

RAID 1

Windows 2003

Network Associates AutoMate



3.4 Implementation Team

LTech will be providing a team of consultants for the implementation of this solution. The team will be focused on this project, and will not be working on any other major project during the duration of the implementation phase.

This core team will consist of the following individuals:

Technical Lead and Architect:

Jason Keicher
office: 732-481-2281
jason@ltech.com

Senior Developer:

Brian Dory
office: 732-481-2279
BDory@ltech.com

Brian Dory has been at LTech for over three years and has been involved with implementing enterprise search using the Google Search Appliance for GetTheJob.com, HireHealth.com and BiospaceJobs.com. Brian has also been responsible for implementing SEO friendly web search solutions using various technologies for a variety of Ltech customers.

Brian holds a Bachelor of Science in Computer Science from Rutgers University.

Developer:

Ralph Weigle
office: 732-481-2282
RWeigle@ltech.com

Ralph Weigle is experienced in designing and implementing GSA front-end solutions. Specifically he has worked in XSLT with Advent and PayPal and parametric search in Red Dog's solution.

Ralph holds a Bachelor of Arts in Information Technology from the New Jersey Institute of Technology.

In addition to the core team listed above, the following individuals will contribute on an as-needed basis:

Java Architect and Senior Developer: Eric Klotzko

Writing and Design: Kelly Glynn

Web Technologist: Chris Bassolino

Graphic Design: Matt Hampton

The team will report internally no less than twice per week to the CTO, Ed Laczynski (ed@ltech.com), who will be available as needed for client conferences.

MarketAmerica's technology and business experts will be part of the implementation team as well. The following individuals have been identified as contributors:

Chris Diggs, TBD

MarketAmerica will identify a single individual as "Project Manager" who will have power to approve decisions and will receive status reports on project progress and communicate with the broader MarketAmerica team.

3.5 Implementation Process

LTech recommends the following implementation process:

- **Analysis:** Complete the review of current technical infrastructure, feeds, website configuration, CFM and Java touch points, review banner and advertising requirements for recommendation of third-party banner management component, ID "reference" system for regression testing, ID major use cases.
- **Specification:** Design DataHub data model, merchandising data model, design Product Content Service XML spec and provide sample XML data (will allow for simulation of the GSA Bridge for MarketAmerica



to begin MarketAmerica website integration testing), specify all business rules for merchandising, write major use cases

- **Development:** Build out local development environment, develop each module, develop end-to-end test cases, integrate each module, build scheduled jobs, build error logging and exception handling methodology
- **Testing:** Unit test each component, regression test system end-to-end, compare search results with reference system, run scheduled tests with all services turned on, run fire-drill tests with key modules disabled/unavailable
- **Deployment:** Deploy GSA devices, deploy hardware and OS software for DataHub, deploy SQL Server 2005, deploy DataHub and modules into staging environment, deploy DataHub and modules into production environment, go-live preparation and execution

LTech will be responsible for delivery of the following modules, with MarketAmerica providing support and guidance:

1. DataHub
2. Product Content Service
3. Merchandising Service
4. Administration Application
5. GSA Feed Application

MarketAmerica will be responsible for delivery of the following modules, with LTech providing support and guidance:

1. MarketAmerica Website

LTech and MarketAmerica will co-develop the GSA Bridge module.

MarketAmerica will be responsible for the deployment and initial configuration of devices, hardware, and software.

3.6 Pricing

Account Management	
Account Coordination and Traffic Support	\$14,400
Project Tools Setup	\$400
	\$14,800
Project Management	\$24,000
Creative Services	
Information Architecture, Copywriting, and Storyboarding	\$4,000
Web, Flash, Photo and Illustration Design	\$4,800
	\$8,800
Technology Services	
Architecture and Documentation	\$44,000



Configuration and Setup	\$4,000
Development	\$216,400
Testing and Deployment	\$64,000
	\$328,400
Total Fixed	\$376,000

4. GOOGLE SEARCH APPLIANCE ORDER

On separate order form.

5. SQL SERVER (additional hardware and software)

Will be purchased separately.



6. PAYMENT.

The total cost for the solution described above, according to the requirements as identified as being in "Phase I" of this solution, shall be \$ 376,000 for custom development services

Delivery and payment for Services shall occur under the following Milestone payment schedule:

Milestone	Percentage of Payment Amount	Estimated Date
Project Kickoff	20%	February 1 st , 2008
Architecture and modeling complete. Stub GSA Bridge delivered to test environment. This allows MarketAmerica web site development team to begin integration.	20%	February 29 th , 2008
All services except for admin application available for acceptance testing.	20%	March 28 th , 2008
Admin application available for acceptance testing	20%	April 30 th , 2008
Full set of services and components accepted by MarketAmerica	20%	June 15 th , 2008

Payments due for **SERVICES** under this Agreement: 20% of estimate due at execution of agreement.

Remaining payments are due within ten (10) days of completion and acceptance of each milestone. The terms for acceptance shall be as set forth in the Services Agreement between the parties. LTech shall not invoice Client for a milestone until it has been accepted.

LTech may, in its discretion, charge (and Client agrees to pay) 1.5% per month in interest (or the greatest interest allowed by law, whichever is lower) for all overdue amounts. In the event of a material breach by Client under this Agreement, all amounts owed to LTech under this Agreement shall be immediately due and payable to Client (notwithstanding a later due date that may be specified under this Agreement).

Expenses. Client shall reimburse the following expenses under this SOW:

- Any third-party commercial software or hardware not included in the above SOW required to achieve milestones above
- Any travel expenses related to this SOW.

The foregoing expenses shall only be reimbursed if such expenses are (i) reasonable, actual, and necessary (without mark-ups or commissions); (ii) approved in writing by the Client project manager in advance of incurring such expense; (iii) consistent with Client's expense policies, which shall be provided to LTECH in



advance; and (iv) a request for reimbursement is accompanied by such documentation as Client may request establishing the type, date, amount, payment and purpose for such expense.

7. RETAINED SERVICES & CHANGE REQUESTS

During the term of this Agreement (and successor terms) LTech will provide 20 hours of service per month for a flat fee of \$3,600. This retainer is cancelable at anytime by MarketAmerica. For any hours in excess of 20 hours, LTech will charge \$180/hour. The 20 hours per month retainer services are on a "use them or lose them" basis, and use by MarketAmerica of less than the 20 hours per month does not reduce the \$3,600 per month fee.

The \$180/hr rate applies to any out of scope work change requests from Client. Any work requested by client that is not specified in this agreement will be quoted and invoiced to client as a change request as an hourly quote

IN WITNESS WHEREOF, the parties have executed this Statement of Work by persons duly authorized as of the SOW Effective Date set forth above.

MARKET AMERICA, INC.:

By: [Signature]

Title: Executive Vice President

Address: 1302 Pleasant Ridge Rd.
Greensboro NC 27409

Telephone: 336-605-0040

Facsimile: 336-605-0041

LTECH CONSULTING, LLC:

By: [Signature] Ed Laczynski
2008.02.01 12:29:44
-05'00'

Title: CTO

Address: 4000 Route 66

Tinton Falls, NJ 07753

Telephone: (919) 841-6680

Facsimile: (732) 559-7122

Please fax to 732-559-7122