Title: SYSTEM AND METHOD FOR CONTROL, DISTRIBUTION AND PURCHASE OF WHOLESALE GOODS AND RELATED INTERACTIONS

Abstract: A system and method, for example, for distribution of wholesale goods, controlling dealer/consumer interaction, tangible good valuation, inventory control, facilitating the sale of a tangible good through an auction process, and generally, for control, distribution and purchase of wholesale goods and related interactions.
SYSTEM AND METHOD FOR CONTROL, DISTRIBUTION AND PURCHASE OF
WHOLESALE GOODS AND RELATED INTERACTIONS

RELATED APPLICATIONS

[0001] This application claims priority to pending U.S. Provisional Patent Application
Serial No. 60/694,318 filed on June 27, 2005, the entire disclosure of which is incorporated
herein by reference.

[0002] Further, the following co-pending and commonly-assigned PCT Patent
Applications which designate among other countries, the United States, have been filed on the
same day as the present application. Each of these applications relate to and further describe
various aspects of the embodiments disclosed in the present application, as well as the above-
referenced Provisional Application. Consequently, the contents of each of the following
patent applications are hereby incorporated herein, by reference, in their entireties, in the
present application: (1) "System and Method for Distribution of Wholesale Goods," filed on
________, PCT Application No. ________; (2) "System and Method for Controlling
Dealer/Consumer Interaction," filed on June 27, 2006, listing Wess Eric Sharpe as the
Inventor, and accorded U.S. Application No. ________, PCT Application No. ________;
(3) "System and Method for Tangible Good Valuation," filed on June 27, 2006, listing Wess
Eric Sharpe and Eric Burton Schorvitz as Inventors, and accorded U.S. Application No.
________, PCT Application No. ________; (4) "System and Method for Inventory
Control," filed on June 27, 2006, listing Wess Eric Sharpe and Eric Burton Schorvitz as
Inventors, and accorded U.S. Application No. ________, PCT Application No. ________;
and (5) "System and Method for Facilitating the Sale of a Tangible Good Through an Auction
Process," filed on June 27, 2006, listing Wess Eric Sharpe as the Inventor, and accorded U.S.
Application No. ________, PCT Application No. ________.

BACKGROUND OF INVENTION

a. Field of Invention

[0003] The invention relates generally to the wholesale good industry, and, more
particularly, to a system and method for control, distribution and purchase of wholesale goods
and related interactions.
b. Description of Related Art

[0004] Inefficient distribution and sale of inventory as well as of non-inventory goods has been a long-standing problem for many types of goods. This problem is particularly acute with respect to vehicles. The number of possible configurations for a specific year, make and model based on available colors, various options, and various configurations is more often than not greater than a billion. Conversely, vehicle dealers can stock only a small percentage of the configurations given space and cost constraints on maintaining inventory. The relatively small local inventory of a vehicle dealer relative to the numerous possible vehicle configurations makes it highly unlikely that the dealer will be able to offer the exact vehicle desired by a customer. Local inventories of used vehicles have an even lower probability of meeting actual consumer demands given additional variables such as mileage, cosmetic condition, etc. Dealers and consumers therefore often settle on a less than perfect new or used vehicle transaction reducing sales, consumer satisfaction, prices and profits and requiring increasing incentives while also creating a high pressure sale process disliked by consumers. The depreciation in dealer to consumer sale prices of used vehicles also affects the amount dealers are willing to pay consumers on trade-ins of used vehicles, further decreasing the consumer's purchasing power for new vehicles sales and creating an unfortunate cycle of depreciation.

[0005] In addition to sales price and profits, the inability to match consumer demand with inventory harms financing operations because it (i) reduces the amount individuals are willing to pay up-front and in monthly payments; and (ii) makes it even more difficult to match low credit buyers with appropriate vehicles. Further, the inefficient distribution of vehicles also has negative effects on the freight transportation industry. In particular, freight carriers are not provided with information sufficient to optimize freight transport and many transporters waste significant resources.

[0006] A variety of solutions have been considered to make vehicle distribution more efficient. At the manufacturing level, build to order and late customization of orders have been attempted. In addition to their relative ineffectiveness, these efforts are unrealistic given other factors that require advance planning for optimal use of manufacturing assets and low cost production. Further, manufacturing level solutions such as these actually increase vehicle costs given requirements for parts storage and movement away from lean manufacturing.

[0007] Several e-commerce based systems for improving product distribution have also been proposed or attempted. Some systems—such as direct order manufacturing—would eliminate the dealer network. Dealers, however, provide important functions such as
distribution of information and product, trade-in opportunities, indirect financing, and servicing and also provide a face to face relationship that is an important aspect of the retail sale of goods such as vehicles.

One existing e-commerce based system that leverages the existing dealer structure for improved distribution of new vehicles is the electronic dealer trade system developed by vehicle manufacturers. Using this system, dealers can locate vehicles at other dealers (or in production for, or transit to, other dealers) and initiate a trade. Dealer trade systems, however, are disadvantageous because they consume significant time of the dealer that may turn out to be a wasted effort—there is no certainty the dealer will be able to obtain the vehicle they have located, much less at a desired price (no price mechanism exists in the dealer trade system). Arranging trades can also be difficult because one dealer (the dealer with the vehicle) is typically in a much better negotiating position than the other dealer (the dealer who wants the vehicle). The dealer looking to make a trade also does not have an easy mechanism for identifying the dealer that will offer the greatest possible return. Finally, even if a trade is consummated, the dealers must spend additional time arranging for freight transportation.

For used vehicles, auctions have provided improved distribution not only between dealers, but also between dealers and remarketers (e.g., corporate and government fleets, rental car companies, etc.). Physical auctions bring more buyers and sellers together for increased value, but are disadvantageous because they require transportation and storage of product (time and cost) and active participation of buyers and sellers (travel time and cost). Further, physical auctions often fail to convey adequate product information to enable buyer confidence and still significantly limit the pool of available participants.

Recent auction improvements include the use of internet video to bring more buyers and reduce participant costs. More significantly, several auctioneers and remarketers have developed or implemented e-commerce based systems for used vehicle wholesaling such as Manheim Online (www.manheim.com), ATC (www.autotradecenter.com), Adesa (www.adesa.com) and General Motors (www.gmonlineauctions.com). Car manufacturers have also adopted electronic systems for wholesaling used vehicles to their dealers and allowing dealers to exchange used vehicles. The limited number of participants in these systems, however, fails to optimize value. Further, these systems also do not integrate freight delivery resulting in buyer uncertainty regarding delivery costs and timing. The inability to guarantee freight cost and delivery in these systems creates uncertainty thereby decreasing potential sales, satisfaction, and profits.
[0011] The inventors herein have thus recognized a need for a system and method for control, distribution and purchase of wholesale goods and related interactions that will minimize and/or eliminate one or more of the above-identified deficiencies.

SUMMARY OF INVENTION

[0012] The invention provides, for example, a system and method for distribution of wholesale goods, controlling dealer/consumer interaction, tangible good valuation, inventory control, facilitating the sale of a tangible good through an auction process, and generally, a system and method for control, distribution and purchase of wholesale goods and related interactions.

[0013] Additional features, advantages, and embodiments of the invention may be set forth or apparent from consideration of the following detailed description, drawings, and claims. Moreover, it is to be understood that both the foregoing summary of the invention and the following detailed description are exemplary and intended to provide further explanation without limiting the scope of the invention as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The accompanying drawings, which are included to provide a further understanding of the invention and are incorporated in and constitute apart of this specification, illustrate preferred embodiments of the invention and together with the detail description serve to explain the principles of the invention. In the drawings:

[0015] Fig. 1 is a diagrammatic view of a system for distribution of tangible goods in accordance with the present invention;

[0016] Fig. 2 is a diagrammatic view of a component of the system of Fig. 1; and

[0017] The remaining figures, tables and flowcharts provide various diagrammatic views of a system and method for control, distribution and purchase of wholesale goods and related interactions.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0018] Referring now to the drawings wherein like reference numerals designate corresponding parts throughout the several views, the figures, tables and flowcharts illustrate various exemplary views of a system 20 and a corresponding method, for example, for distribution of wholesale goods, controlling dealer/consumer interaction, tangible good valuation, inventory control, facilitating the sale of a tangible good through an auction process, and generally, for control, distribution and purchase of wholesale goods and related interactions.
As described in detail in copending application titled "System and Method for Distribution of Wholesale Goods," filed June 27, 2006, and the disclosure of which is incorporated by reference in its entirety, generally, Fig. 1 illustrates a system 20 for distribution of tangible goods in accordance with the present invention. System 20 is particularly adapted for use in distributing types of goods that are tangible (i.e., have a physical structure) and in which each of the goods is unique in some way. In particular, system 20 is adapted for use in distributing vehicles such as automobiles. Vehicles are unique in that each vehicle has a unique vehicle identification number (VIN) that allows information about the vehicle (e.g., prior repair history, ownership history, etc.) to be tracked. Although system 20 is particularly adapted for these types of goods, however, it should be understood that system 20 may be used for distribution of a wide variety of tangible goods.

System 20 includes a computer system 22 or central computing architecture. System 22 includes one or more microprocessors configured in accordance with the present invention by programming instructions (i.e., software) to perform one or more of the functions described herein. In particular, system 22 establishes an electronic wholesale marketplace for a type of tangible good in which wholesalers can sell and purchase the goods and further establishes an electronic freight marketplace for the goods in which freight haulers can accept contracts for the transport of the purchased goods. In this connection, system 22 is designed to allow a variety of participants to interact with the wholesale marketplace and the freight marketplace including dealers 24, remarketers 26 (e.g., in the case of vehicles, rental car companies, corporate and government fleet owners, leasing institutions, etc.), freight haulers 28, manufacturers 30, financial institutions 32, and third party product and service providers 34 (e.g., third party inspection services, storage and distribution services, auctioneers, information providers, etc.). The number and type of marketplace participants—and the type of interaction of those participants with the marketplaces—will vary depending upon the type of good and other factors. System 22 will also assume a wide variety of computing configurations depending on the type of good and other factors (e.g., type of marketplace participants). As such, system 22 may include a plurality of computing devices arranged in one or more of a plurality of known computing architectures. System 22 may, for example, include servers, such as servers 36, 38, 40 and may include one or more supercomputers 42.

As used herein, the term "server" refers to a computing device coupled to a network and configured by programming instructions (i.e., software) to provide services to other computing devices (including other servers). Referring to Fig. 2, the architecture of each
server 5b, 38, 40 may be described as a series of layers including an operating system layer 44, a database layer 46, an application layer 48 and an interface layer 50.

[0022] The operating system layer 44 of each server 36, 38, 40 may include a conventional operating system such as one of the operating systems sold under the registered trademark "WINDOWS®" available from Microsoft Corporation of Redmond, Washington. It should be understood, however, that other conventional operating systems such as those based on the Linux or UNIX operating systems or operating systems for the Apple computer system (e.g. OS X) may alternatively be used.

[0023] The database layer 46 is configured to provide a static and dynamic contact structure for each server 36, 38, 40. Database layer 46 is used to provide both intermediate information while each server 36, 38, 40 executes operations and long-term storage of data. Database layer 46 may employ a database management system (DBMS) such as the DMBS sold under the trademark "SQL SERVER" by Microsoft Corporation of Redmond, Washington.

[0024] The application layer 48 is configured to communicate with and between database layer 46 and interface layer 50 and configures the server 36, 38, 40 to perform the functions described in greater detail hereinafter. Application layer 48 may be implemented using conventional software development components and may further include a combination of JavaScript, VB Script and ASP (Active Server Pages) and other conventional software components to provide required functionality.

[0025] Interface layer 50 provides a graphical and communications interface between the servers 36, 38, 40 and between the servers 36, 38, 40 and supercomputers 42 and the computing devices used by dealers, remarketers, freight haulers, financial institutions and third party service providers. Interface layer 50 may be configured to be extensible Markup Language (XML) or Simple Object Access Protocol (SOAP) compliant.

[0026] Referring again to Fig. 1, servers 36 may comprise web servers or application servers running application server software (and/or a combination of the two). Servers 38 may comprise database servers running database server software that provides database related services—including access, retrieval from, and storage to databases 52—to servers 36, 40 and supercomputer 42.

[0027] The information stored in databases 52 will vary depending on factors such as the good and the marketplace participants. In the case where the good is a vehicle, databases 52 may include information relating to the market participants. For example, databases 52 may store information about each participant such as business entity information (name, addresses, identification information, SIC classification, etc.), contact information (identification of
primary contacts and their titles, phone numbers, email addresses, etc.) authentication
information, relationships (e.g. linking dealers by a shared characteristic such as common
ownership), controls on marketplace participation (defined by the dealers 24 themselves or by
manufacturers 30, financial institutions 32, etc.), licenses, insurance coverage, etc. Databases
52 may also include valuation information used in valuation of the goods. For example,
databases 52 may include information regarding specifications for the goods and each dealer's
labor rate for repair of the goods (flat rate based on type of repair or time-based (hourly) rates)
to assist in providing a proper valuation, and estimated time for repairing predefined defects
in the goods (e.g., a cracked windshield in a vehicle). Databases 52 may also include
information about previous marketplace transactions for each good. The above examples of
the type of information stored in databases 52 are not meant to be exhaustive, but rather
illustrative. It will be evident from the subsequent description that databases 52 will hold a
wide variety of information for use by system 22.

[0028] Servers 40 and supercomputer 42 may be used to provide distributed computational
resources within system 22 and to perform intensive computational and processing functions.
Supercomputer 42 may comprise a computing device including a plurality of microprocessors
configured to engage in parallel processing such as those offered for sale by IBM Corp or
Cray, etc.

[0029] Servers 40 and supercomputers 42 may be arranged in any of plurality of
distributed computing architectures such as a two-tier (client-server) computing architecture,
or a multi-tier (n-tier) computing architecture, or a grid computing architecture or a peer-to-
peer computing architecture. Servers 36, 38, 40, or other servers (not shown) may also
perform conventional distributed computing functions such as load balancing among the
servers 36, 38, 40.

[0030] Servers 36, 38, 40 and supercomputers 42 communicate with one another over a
telecommunications network 54. Network 54 may, for example, comprise a local area
network (LAN) or wide area network (WAN) and may comprise an intranet or an extranet and
may utilize the public internet. An enterprise service bus (ESB) may be used to control
communications (including messaging and routing) over network 54 between servers 36, 38,
40 and supercomputers 42.

[0031] The marketplace participants—including dealers 24, remarketers 26, freight haulers
28, manufacturers 30, financial institutions 32 and third party product and service providers
34—will use a variety of computing devices to connect to system 22 over a
telecommunications network 56. These devices may include, for example, local servers 58,
wireless access points (WAPs) 60 and personal computers 62 such as desktop or laptop
computers and handheld computers such as personal digital assistants (PDAs). Network 56 preferably includes the public internet and may include both wired and wireless networks. For example, freight haulers 28 or other market participants that may be located remotely from wired computers or sites may invoke cellular, satellite or other wireless technologies as part of network to enable communication of their computing devices with system 22.

[0032] Servers 58 may comprise webs servers or application servers or a combined web/application server. Servers 58 may provide a variety of functions depending on the application. In accordance with one aspect of the invention, however, servers 58 may be configured to communicate with an inventory management system 64 for a dealer 24 of tangible goods (e.g., a vehicle dealer's DMS system) for inventory control. Server 58 may receive information pertaining to the dealer's inventory from system 64 and provide it to computer system 12.

[0033] Wireless access points (WAPs) 60 are provided to enable communication between wireless computing and communication devices and may comprise conventional structures known in the art. For example, WAPs 60 may be used to allow inspectors to inspect the goods located at dealerships (e.g. outside storage lots) or other locations lacking access to a wired network and to send information to and receive information from system 22.

[0034] Personal computers 62 are provided to perform a wide variety of functions, many of which are described hereinafter, depending on the market participant. Personal computers 62 may function as client in a client-server configuration with servers 36, 38, 40 of system 22. In particular, computers 62 may run client software to access system 22 such as an internet browser (in the case of a web-based application) or a customized graphical user interface.

[0035] Servers 58, WAPs 60 and computers 62 may communicate with one another at a market participant's location or locations over a private telecommunications network 66 such as a local area network (LAN) or wide area network (WAN). Servers 58, WAPs 60 and computers 62 may further communicate with system 22 through network 56. Again, an enterprise service bus (ESB) may be used to control communications (including messaging and routing) over network 56 between servers 58, WAPs 60 and computers 62 and system 22.

[0036] While the remaining architecture and operation of system 20 is described in copending application titled "System and Method for Distribution of Wholesale Goods," as briefly discussed above, the present application will describe specific operations of system 20, for example, for distribution of wholesale goods, controlling dealer/consumer interaction, tangible good valuation, inventory control, facilitating the sale of a tangible good through an auction process, and generally, for control, distribution and purchase of wholesale goods and related interactions.
In the last hundred years or so, a handful of developments have proved pivotal to the development of the automotive industry. Henry Ford’s use of the moving assembly line, Alfred Sloan’s brand segmentation of the market, and the Toyota Production System had enormous impact on what the business looks like today. Now, NAMX promises to take its place in the history books.

The National Automotive Market Exchange is a revolutionary concept that will drastically improve the way new and used cars are wholesaled and retailed. It will eliminate vast amounts of waste and cost in the process at the same time it provides consumers with precisely the kind of car they want to buy. Amazingly, it does this all within the existing dealer franchise system.

While many people have contributed to the design and development of NAMX, it is truly a creation of Eric Sharpe, one of the most brilliant and engaging people you will ever have the pleasure of meeting. Eric combined his automotive retail and wholesale experience with his unique insight into the power of markets to come up with NAMX. As they say, the devil is in the details. And as you’ll soon read, Eric has developed this business system to an extraordinarily detailed degree.

In more than a quarter of a century of observing the automotive industry I've never seen a business system that promises to benefit automakers, suppliers, dealers, re-marketers, auction houses, car haulers, distributors, and consumers all at the same time. But NAMX does just that. Don't take my word for it. See what the other experts listed below have to say about NAMX because the very document you hold in your hands right now is going to change the automotive business forever.

John McElroy
Detroit, Michigan
June 2005
"Until now, no one has looked at the automotive industry as a value chain. Automakers, suppliers, retailers, et cetera have only looked at their own part of the business. But NAMX looks at the entire value chain. To use the industry jargon, it uses a systems engineering approach to taking out cost and adding value. And it does this for everyone in the industry. My advice to dealers is to take a good look at NAMX and give it a shot. This is not an OEM program; it's not being driven by some large dealer group. It is a member-regulating business backed by an impressive list of investors, advisors, and staff of auto industry veterans. Not only does it have the potential to grow the dealer business, I believe that NAMX will grow the entire new and used vehicle markets."

Bill Lovejoy, former Group Vice President of North America VSSM, General Motors

Lovejoy began his career at General Motors Acceptance Corp. in 1962. He was named president of GMAC in March 1990, became general manager of GM's service and parts organization in 1992, was elected a GM vice president in 1994, and in 2000 was named to head North America Vehicle Sales, Service and Marketing where he oversaw increases in General Motors U.S. market share while also increasing GM dealer-satisfaction scores. In 2002, the Sales and Marketing Executives of Detroit named Lovejoy "Marketing Statesmen of the Year" for his leadership in the successful "Keep America Rolling" incentive campaign of late 2001. In 1996, 1998 and 2002, Lovejoy was honored as an Automotive News executive "All Star." Mr. Lovejoy is also a NAMX advisor.

"My first reaction when I learned about NAMX was "Wow! This is going to be a Big Thing." We all knew there were inefficiencies in the wholesale and retail part of the business, but up to now we've only taken mini-steps. NAMX is the first time anyone's taken a complete systems approach. It will optimize the system from the time the car leaves the factory all the way through the wholesale and retail and re-marketing processes. That will provide a significant cost reduction, and anything that improves the efficiency of the system will make cars more affordable and dealers more profitable."

Dr. David Cole, Chairman, Center for Automotive Research

Dr. Cole co-founded the office for the study of transportation (OSAT) in 1978, serves on the board of directors of the Automotive Hall of Fame, and is active in the Society of Automotive Engineers, serving two terms a director. Dr. Cole is a recipient of the NADA International Freedom of Mobility Award and was chosen to receive Sweden's Order of the Polar Star. Additionally, he received the 1998 Rene Dubos Environmental Award for his contributions to industrial ecology. In addition to providing industry and government with unbiased research and advice, Dr. Cole and the Center for Automotive Research conducts premier industry conferences and forums such as the management briefing seminar and manages the automotive news world congress. Dr. Cole is a NAMX advisor.
"The NAMX systems are immediately appealing because they will bring order and efficiency to the automotive market without squeezing anyone. Everyone will benefit—manufacturers, dealers, and consumers. The beauty of NAMX is that it gets the right vehicle to the right customer at the right time for the right price. The current system is so hit or miss that the manufacturers spend tens of billions of dollars in sales incentives to make up for the inefficiencies in connecting consumers with the vehicle they really want. But we live with it because there is no currently available alternative. NAMX will be transformational. I have never seen a system or business process that promises to generate the kind of economic wealth that NAMX could deliver."

Robert G. Cross, Chairman and CEO, Revenue Analytics, Inc

Robert Cross founded Talus Solutions, Inc., in 1984 to integrate finance, marketing, and statistics into a new discipline called "Revenue Optimization." Revenue Optimization uses large customer databases and sophisticated mathematical routines to forecast customer demand and optimize the price and availability of products in order to maximize profits. Cross is also the author of the New York Times Best Seller, Revenue Management — which has been translated into French, German, Japanese, Korean, and Portuguese. Hailed by the Wall Street Journal as "the guru of revenue", Cross has consulted many of the Fortune 500 firms to improve their profitability, including hundreds of millions of dollars of documented profitability with Carmakers. Cross is also a NAMX advisor.

"The cost penalty of holding vast inventories of cars is significant. There are some 4 million new vehicles in OEM, transit, and dealer inventories right now, and yet roughly 80 per cent of new cars sold are not exactly what the buyer wanted. This mismatch leads to costly discounting to "move the metal," as well as incurs working capital charges and other expenses. A system that can provide a greater transparency into these inventories, so that consumers and dealers alike can find exactly the right car, will be good for all concerned."

Glenn Mercer, Automotive Expert Partner, McKinsey & Company

Since joining McKinsey in 1985, Mercer has primarily served clients in the automotive industry, and has been specialized wholly in that field for the last decade. As an expert partner he helps shape the automotive practice's research, actively maintains the firm's external profile in the auto arena, and assists 200-250 McKinsey teams annually with information and insights into automotive topics. Mercer has written over 100 articles for various publications, contributed chapters to several books on the automotive industry, and has given dozens of speeches to industry audiences around the world. Prior to joining McKinsey, Mercer worked in a variety of positions at British Petroleum, after a period of government service in the Central Intelligence Agency.
"The most amazing aspect of NAMX is that Eric Sharpe has linked all these disparate pieces of the industry together. He's the first person to be able to see and understand how to do this. Only someone with his experience, someone who has lived it, could see the magnitude of opportunity that exists here. One of the most important aspects of NAMX is it will result in higher asset utilization for all involved, without them needing any additional investment in physical equipment or properties. For example, one of the keys to the dealer business is inventory turn-over. Imagine if NAMX helps a dealer turn its inventory every 40 to 45 days, versus someone outside of NAMX taking 60 to 90 days. It's going to help their ROI, their profitability, and their customer satisfaction. I don't see any risks to this business model, only benefits."

Maryann Keller, Industry analyst and consultant

Mrs. Keller was with Furman Selz (ING Barings), where she served as the firm's lead auto analyst since 1986. Prior to Furman Selz, she was portfolio manager with Vilas-Fischer Associates from 1983 to 1986, and served as the lead automotive analyst with Paine Webber from 1980 through 83. She was Kidder Peabody's automotive analyst from 1972 to 1980. Keller was named the industry's top auto analyst six times during her career. Mrs. Keller has written two automotive industry books and was awarded the Eccles Prize by Columbia University for excellence in economic writing. Mrs. Keller currently serves on the board if Lithia Motors Inc. (8th largest dealer group) as well as Thrifty Automotive and previously served on the board of Sonic Automotive (3rd largest automotive group).

"I was surprised to learn that the automotive industry didn't have something like NAMX in place already. We've seen other markets transition from opaque pricing to transparent pricing and they've benefited tremendously, so the auto industry is ripe for this. NAMX will greatly reduce the time and cost needed for dealers to learn about wholesale price. I think this will grow the market and help dealers do what dealers do best: provide a wide range of choices to consumers. As we've seen elsewhere, consumers will pay a premium for increased choice."

George Hall, Associate Professor, Department of Economics, Yale University

Dr. Hall earned his Ph.D. in economics from the University of Chicago and served at the Federal Reserve Bank before joining Yale University. He has been honored as an Alfred P. Sloan Research Fellow at MIT and by the National Science Foundation for work on "Empirical Models of Inventory Investment and Price Determination by Durable Commodity Intermediaries". Dr. Hall was awarded a University of Chicago Century Fellowship as well as the Joel Dean Prize (for best honors thesis in economics) at Oberlin College in 1989. While at the Federal Reserve and at Yale University, Dr. Hall has been published as the co-author of studies specifically concern automobile inventories.
"When I first heard about NAMX I thought it was a preposterous concept. But you just can't capture it the first time around. Every time you pick it up you learn something that you didn't see before. When you get into the substance of all the NAMX systems and how they are integrated you begin to appreciate the sheer logic, practically, and value. That is when NAMX becomes captivating and exciting. Yet, despite the sophistication, dealers will find that NAMX works in a way that will meet their needs using very simple tasks. As a result of the dealer efficiencies, everyone else will benefit immediately, including bank and lending institutions as well as all other vehicle remarketers. NAMX will make possible a new level of efficiency that's never been imagined before."

Ron Loshin, Chairman and CEO, Bank Lease Consultants, Inc

Mr. Loshin is recognized as an authority in consumer vehicle leasing and automobile finance. He is the co-author of the only two books devoted exclusively to the technical requirements of the vehicle leasing business: The Automobile Lending and Leasing Manual (1989), as well as the Essentials of Consumer Vehicle Leasing (1985). Mr. Loshin is an expert in lease program design, securitization, portfolio sales and acquisition, and credit and residual risk management. Mr. Loshin convened The National Lessor Roundtable, now the Association of Consumer Vehicle Lessors, whose members include virtually all vehicle lessors. Loshin represented the principal segments of the auto industry in developing an industry-backed leasing bill, the New York Motor Vehicle Retail Leasing Act, 1994.

NAMX is the most exciting new business plan I've seen in a long time. It is the classic example of how to maximize market efficiency. There is no question it will grow the new and used car market, because everyone selling cars will make more money and everyone buying cars will save more money. This reminds me of how the NASDAQ started, taking advantage of a new electronic infrastructure to make a more efficient market. My only question is, "How can I invest?"

Dr. Richard Soley, Chairman and Chief Executive Officer of the Object Management Group

Dr. Soley was the original Technical Director of the OMG and serves as a valuable resource for a broad range of topics: from predictions and trends in the industry to the nuts and bolts of CORBA implementations as well as the OMG technology adoption processes. Previously, Dr. Soley was a co-founder and former Chairman/CEO of A. I. Architects, Inc., maker of the 386 HummingBoard and other PC and workstation hardware and software. Prior to that, he consulted for various technology companies and venture firms on matters pertaining to software investment opportunities. Dr. Soley has consulted for IBM, Motorola, Texas Instruments, and others. OMG is a not-for-profit consortium that produces and maintains computer industry specifications for enterprise applications. The OMG worldwide membership includes virtually every large company in the computer industry.
"It is about time that someone truly understood the automobile transportation, wholesale, and retail parts of the automotive industry and provided practical solutions to very old and large problems that dealers cope with everyday. Clearly, NAMX has left no stone unturned... the insight and solutions are breathtaking. In fact, NAMX will provide dealers with so much value in so many different ways that I am hard pressed to focus on just one component. Imagine if the only way to communicate was the pony express and then one day, all of the sudden, everyone had a telephone and email. For dealers, vehicle inventory impacts every part of vehicle retail sales. Because NAMX will enable cheap and fast vehicle wholesale to the highest demand as well as instant access to the vehicles our customers want at the push of a button, NAMX will vastly improve the retail process. I strongly believe that NAMX will lower cost and help dealers sell more cars with less effort and risk. I also like the fact that NAMX is structured as a membership association, kind of like a co-op for dealers."

Kurt Von Mechling, Dealer Principal, Performance Chevrolet-Buick-GMC, Seneca, SC
Mechling received an automotive graduate scholarship for conducting market research on behalf of General Motors in 1976. As a result, he began his career at the OEM level with Toyota and Ford. For the last 20 years, Mechling has been a franchise dealer general manager and dealer principal.

"I agree with the title, NAMX is "the future of automobile retail". It will force all vehicle inventories to the right place. It will enable customers to get what they want. It will improve customer satisfaction and dealership productivity. In fact, I cannot think of a single cost in the vehicle retail process that NAMX will not reduce, a single revenue stream that NAMX will not increase, nor can I think of any reason why every dealer and dealership management team would not use NAMX every day."

Jerry Brown, General Manager and Partner, Gwinnett Place Honda, Duluth, Georgia
Mr. Brown is responsible for the day-to-day operations of Gwinnett Place Honda, one of the top five Honda dealerships in the United States. He has over 33 years of experience in automobile retail and has served for the Hendrick Automotive Group (7th largest automotive group) for over 18 years.

Dealer acceptance is critical to the success of NAMX. The dealers above were specifically chosen to comment on NAMX due in part to their lengthy tenure and operational differences such as their location (metropolitan versus rural), vehicle retail sales volume (very high versus average), and product diversification (import versus domestic), which suggests that NAMX systems will be equally attractive to the small and large dealers as well as the domestic and import dealers alike.
Mission:
Connect buyers and sellers of products and services with one vehicle wholesale market and streamline those supplies to optimal demand.

Vision:
Enable the right vehicle, at the right place, at the right time with efficient and effective wholesale.
001 I Growing Consumer Expectations

"You can paint it any color, so long as it's black." Henry Ford's paradigm of a basic and affordable automobile served the industry very well. In the 1920's, consumer segmentation started favoring a General Motors' policy of "a car for every purse and every purpose." By the beginning of 1960, the then president of General Motors, John Gordon said, "I could, in theory, go through a whole year's production without making any two cars exactly alike." Since the time of Henry Ford, carmakers have chased consumer demand by expanding the possible model, color, and option combinations. However, automobile distribution clearly fails to match those capabilities with consumer demand. In reality, most consumers do not get what they want. While designing, producing, and marketing great automobiles is critical, getting them to the right place at the right time is likewise critical. This document will show that efficient and effective distribution is the true opportunity for all carmakers and dealers. Moreover, this document will show that NAMX has designed an undeniable solution with a practical and feasible implementation plan that will radically improve the automobile industry.

002 I Automobile Distribution Channel

On average, carmakers distribute approximately 32 new vehicles every minute of every day to their U.S. franchise dealers in almost the same way that Henry Ford sent twelve Model A's to the first franchise dealer (William Hughson) in 1903. Those units were produced in Michigan and then sent to Hughson's store in California. Since then, the automobile ordering and fulfillment systems have improved. In fact, the industry probably has the best production system in the world. However, in the early 1900's, there were few models, colors, and options. Therefore, distribution was simply a matter of matching the volume of supply with the volume of demand in specific areas. As such, the risks of build-to-stock speculation were somewhat low. Since then, the possible combinations of models, colors, and options have skyrocketed into the billions and will most likely continue to grow.

003 I Automobile Franchise Dealer

The franchise dealer system serves five primary functions:

1. Providing customers with feature and benefit information about vehicles and options
2. Providing customers access to the vehicles and options that meet their needs and wants within their instant gratification expectations
3. Providing a vehicle trade-in process that maximizes consumer wealth when they trade-in their vehicle while also reducing the cost of vehicle ownership based on future resale value
4. Providing indirect vehicle finance that enables the consumers to exercise their demand to buy or lease via affordable monthly installments
5. Providing parts and service capabilities enabling consumers to have their vehicles serviced while likewise managing warranties and recalls for the carmakers

Of those five, providing their customers with the vehicle and options they truly want is of the highest value. Since the consumer's vehicle purchase decision tends to be based on more emotion than logic, franchise dealers tend to stock from 60 to 90 days or about $100 billion of new vehicle stock in an effort to improve the probability of meeting the consumer's instant gratification expectations.
Potential Ordering Combinations

The design and ability to produce models, colors, and options is based on intense research from the outset and reflects some degree of consumer demand. However, the possible combinations of models, colors, and options for the average dealer are in the millions while the average new vehicle inventory is only about one hundred units. Therefore, the consumer’s ability to locate their optimal vehicle at the average dealer is very low. If the possible ordering variations for each dealer were only one million and they were a true reflection of demand, the likelihood of a consumer locating their optimal vehicle at a dealer would be a microscopic .01 percent. Even if consumers narrowed their search to one model, the likelihood remains basically the same since a specific model is only a relative part of inventory. In reality, consumer demand for some combinations is far greater than others while some combinations will never be built. Clearly, consumer demand is not equal to the possible combinations. In fact, many models have possible variations that are more than a million times their actual sales. Nevertheless, it is most unlikely that any specific vehicle inventory will maximize consumer satisfaction. In reality, consumers tend to accept what is available rather than select what they want, thus: vehicle sales, prices, and profits are diminished by poor distribution.

Used Automobile Relationship

From the mid 1920’s, the used vehicle trade-in has radically enhanced growth in every part of the industry. Despite the clear relationship between used vehicle value and all vehicle sales, the used vehicle remains an underestimated component of industry growth. When a customer trades his or her current vehicle to buy a new or newer one, maximum used vehicle value decreases ownership cost for the vehicle being purchased based on maximum future resale value. In addition, maximum value can be measured by the increase of consumer’s wealth, i.e. his or her ability to buy. Whether measured by lower ownership cost or increased wealth, higher used vehicle values will increase vehicle sales for every dealer and carmaker. Based on factors such as multiple year models, mechanical readiness, cosmetic condition, and mileage - the challenges of used vehicle inventory are even greater than new vehicle inventory. Similar to new vehicles, it is unlikely that a consumer locates his or her optimal used vehicle at a dealer while all used vehicle inventory is also likely in greater demand elsewhere. As such, used vehicle values are artificially diminished as well, which exacerbates the loss of new vehicle value, thus, depressing used vehicle values further and so on.

Actual Consumer Satisfaction

While the loss of new and used vehicle value is undeniable, some may contend that the losses are marginal since sales are only a small part of the possible configurations. However, new and used vehicle inventories are typically based on previous sales. Knowing that consumers accept what is available rather than select what they want, the argument is invalid because the effect of previous sales is unknown. Since inventories fail to provide what consumers truly want, it cannot be known which variations will maximize value or by how much - but the loss of sales and profit is certain.
007 | Consumer Interaction Realities

When dealers have the vehicle a customer wants, they almost always close the sale while earning higher profit as well as a satisfied and loyal customer. When dealers do not have the vehicle that a customer truly wants, which is most of the time, the results are very different. At times the variance between consumer satisfaction and availability will be as simple as color, or one option too few, or one too many. Other times the variance will be the year, mileage, or condition of a used vehicle. Far too often, it is a combination of all of them. As a result, salespeople tend to force-sell options that customers do not want or sell vehicles void of options they do want or both at the same time and thus, the sales process is usually fraught with tension, many sales are lost, and dealer profits are almost always less if any. When a salesperson sells a vehicle without the options the customer wants, price and profit are reduced since consumer satisfaction is reduced. When a salesperson sells a vehicle with options the customer does not want, profit is also reduced since the cost is not relative to consumer satisfaction. Either way, the dealer, carmaker, and customer are all worse off.

008 | Automobile Finance Realities

From the early 1920’s, vehicle finance has been a catalyst for industry growth and has improved vastly over time. However, ineffective inventory likewise impacts finance and leasing. By providing what customers want, dealers are far more likely to increase how much more consumers will pay up-front and on a monthly basis. Moreover, finance institutions limit the amount financed based on the consumer’s creditworthiness, ability to repay, and collateral. Therefore, many vehicle sales are subject to finance conditions such as amount financed and monthly payment. To that end, dealers continuously struggle to match their inventory with the combination of customer wants and approval criteria, which impacts over ninety percent of retail sales. Due to inventory limitations, too many times profit is reduced and sales are lost because dealers do not have the right vehicle to match the combination of customer wants and finance criteria, especially with the sub-prime customers. If dealers could efficiently provide the optimal vehicle for both, it would easily improve vehicle sales.

009 | Operational Inventory Pressures

Because consumers are unlikely to locate their optimal vehicle at a dealership, dealers experience a high amount of pressure to sell their inventory to the consumer. Pressure exists in two forms:

1. **Interest and depreciation forces dealers to turn inventory in spite of consumer satisfaction**
2. **Dealers must complete their retail sales before losing their customer to another dealer**

As such, dealers are forced to sell from stock regardless of profit simply because the risk of losing a customer is too high. Typically, the salesperson will qualify a customer’s expectations and then attempt to come as close as possible within the inventory limitations. In reality, inventory pressure causes a very poor relationship between dealers and consumers. Despite the tremendous value provided by the franchise dealers, perhaps that reality explains why consumers ranked vehicle sales 20th on a list of 21 professions, just in front of telemarketers, based on a recent Gallup poll.
010 | Automobile Production Process

Of course, dealers can only serve their customers within the structural limitations of the industry, which are considerable. The carmakers can only serve their dealers within the physical restraints of production, which are considerable as well. Over time, carmakers have improved manufacturing efficiency. However, conventional mass production is a business of compromise. The compromise is a reality of the physical requirements to achieve the economies of scale that enables affordable automobiles in the first instance. Requirements include factors such as design coordination, capital assets, plant forecasting, capacity planning, order scheduling, production sequencing, component production, and final assembly across many tier-suppliers and departments. In reality, affordable automobiles command lead and completion time. Therefore, production cannot quickly respond to specific consumer demand regardless of the ability to produce billions of possible specifications.

011 | Automobile Ordering Processes

The profitable production of affordable automobiles likewise requires a high usage of resources, i.e. land, labor, and capital. To maintain plant efficiency and allow for the needed lead time, carmakers must forecast the demand for each model months in advance of production. Forecasts are based on numerous factors such as previous and potential sales for each model, market, and dealer. For many carmakers, the forecasts incorporate current orders and inventory. Based on the forecasts, each market and dealer is assigned an allocation of potential production for each specific model, which they must order months in advance of delivery and demand. While some carmakers include a balanced inventory scheme, dealer allocations are traditionally known as "turn and earn" since they are predominantly based on previous retail sales. Basically, the "turn and earn" increases or decreases the potential amount of orders that a dealer can place for each specific model. Because the industry is fraught with severe overcapacity and thus, overproduction, the "turn and earn" rarely limits the quantity or models that dealers are willing to stock. In theory, "turn and earn" will provide a fair system for dealers and assist distribution efficiency. In reality, vehicle inventory is displaced.

012 | Vehicle Inventory Displacement

Knowing that production of affordable automobiles requires lead time and plant utility, carmakers and dealers almost always forecast and commit to production months before actual demand. Not counting sold orders, which are rare, vehicles are built and then sent to a holding lot and/or dealer inventories. That process is generally known as build-to-stock distribution. With 21,650 franchise dealers and billions of ordering possibilities, the probability that a vehicle is ordered, built, and sent to stock at a dealer with the highest consumer demand for the specific vehicle is extremely low. In reality, every vehicle in the estimated $100 billion of new vehicle stock is likely in greater demand at another dealer, i.e. displacement. Displacement raises cost while reducing prices for all dealers and carmakers. While a vehicle is aging at one dealer (increasing cost), the optimal customer for that vehicle is likely at another dealer who is unlikely to have that vehicle in-stock (reducing price).
013 | Consumer Order Responsiveness

Knowing that distribution compromises the ability of consumers to get what they want, carmakers have invested considerable resources into reducing the amount of days needed to build and deliver a specific vehicle. While those initiatives have reduced the order-to-delivery time from about 70 to almost 40 days on average, the economic and physical realities of production are unlikely to ever enable distribution of affordable automobiles in a timeframe that will meet the consumer’s instant gratification expectations. In addition to ineffectiveness, build-to-order is practically the opposite of lean manufacturing because it is intrinsically wasteful and prohibitively expensive in the production environment not to mention transition cost, first mover disadvantages, and outright dealer rejection.

014 | Automobile Customization Reality

In the struggle to provide consumer’s with the optimal vehicle as fast as possible, some carmakers have enabled late customization (change of options) of vehicles that have already been ordered or are being produced. However, quickly responding to many potential changes requires a massive storage of parts and components among other inefficiencies that increases cost for carmakers and thus, dealers and consumers. Adding to increased cost, late customization applies to extremely few sales because “as fast as possible” is simply not fast enough for the customers or dealers. Moreover, late customization does not address the overwhelming cost and loss of vehicle value resulting from vehicle displacement in the estimated $100 billion of new vehicle inventory and the approximate $100 billion of used vehicle inventory. In short, late customization is not an industry solution. It is merely an inefficient method for improving consumer satisfaction for very few sales. Due to an inherent conflict between production of affordable automobiles and quickly responding to a vast array of potential combinations, it is best that production focus strictly on lean manufacturing.

015 | Automobile Electronic Retailing

By the late 1990’s, many people asserted that retail e-commerce would revolutionize the automotive industry while some predicted that the Internet would usurp consumers from the dealers. However, dot-coms will not replace dealers or solve any systemic industry problems. While some firms such as AutoTrader.com actually provide value, other dot-coms overtly diminish dealer opportunity with tactics such as cut-throat pricing and setting unlikely consumer expectations. By disseminating the dealer invoice to increase the draw to their site, those dot-coms are free-riding at the expense of dealers. From their inception, most dot-coms have and continue to underestimate the value that dealers provide consumers. Other than fundamentals such as vehicle representation, consumer trades, indirect financing, state documentation, and vehicle delivery - the face-to-face relationship that is critical to the emotional realities of automobile retail is not enabled by the Internet. Dealers are and will remain the gatekeepers of the consumer purchase decision. Rather than diminishing vehicle value by leveraging dealers against one another online, the industry needs one system that will enable dealers to efficiently and effectively maximize consumer satisfaction, sales, and profits.
016 J Automobile Industry Proposition

Other than healthcare and homeownership, no industry provides as much value for consumers as the carmakers and dealers. With that knowledge, a few carmaker executives and dealer principals will ardently defend the current state of industry affairs. However, nobody can deny or defend the clear and current combination of overcapacity, underutilization, overproduction, brand deterioration, excessive inventory, vehicle displacement, and inventory devaluation realized everyday within the automotive industry. Even the most satisfied or lazy cannot deny the clear inability of distribution to match the extreme value of production capabilities with consumer demand regardless of excessive inventories. While a few may contend that consumers do not really know what they want and thus, the loss of value is low - the realities of automobile retail conclude otherwise. Furthermore, a 2005 Scarborough analysis of 19 million potential new vehicle consumers finds that vehicle selection and price are the top two reasons that consumers selected their last dealer to purchase an automobile. Owning the combination of those unfortunate realities, carmakers are forced to subsidize vehicle sales with over $70 billion of incentives annually or roughly $200 million per day in the U. S. alone.

017 J Automobile Satisfaction Pressure

As overall consumer satisfaction increases for other products and services based on a continuous growth of efficiency and effectiveness, the consumer's expectations for automobile satisfaction will also increase. As consumers increase their automobile satisfaction expectations and the industry fails to match or exceed those increases with efficiency and effectiveness, direct pressure is placed on dealer and carmaker profits. While carmakers compete with carmakers and dealers compete with dealers, they must also compete for the consumer's dollar. Example: a dealer provides his or her customer with the exact automobile he or she wants. By meeting his or her expectations, the customer is willing to pay a mere $20 more per month than the cost difference or about the price of two movie tickets. On a 60 month finance agreement, the $20 equals about $1,000 more per unit or $17 billion if multiplied by U.S. new vehicle sales. For used vehicles, only $7 more per month would generate $14 billion while further increasing new vehicle sales. Owing to the relative cost and importance of an automobile to the average consumer, providing them with the vehicle they truly want rather than forcing available stock is likely worth more than two movie tickets per month.

018 J Automobile Industry Profitability

The potential $31 billion is more than the average profits for all carmakers and dealers combined in the U.S. market. Many elements comprise carmaker profits but new and used vehicle sales are the most critical engines. Regarding vehicle sales specifically, many carmakers struggle to provide an appropriate value for shareholders. While few ventures are more challenging than automobile retail, most franchise dealers are profitable. Nonetheless, their profit as a percent of net worth has declined 15 percent while their new vehicle profit per unit has dropped 35 percent over the last five years. Over the last decade, franchise dealer used vehicle profit per unit has declined 57 percent.
Automobile Redistribution Premise

With some relatively small improvements and almost zero change, carmakers and dealers could earn far greater profits from the immense value they provide. However, the solutions must attach to the current distribution system rather than impractical changes such as build-to-order. Knowing the conflicts between lean manufacturing (affordable automobiles) and providing consumers with the automobile they want when they want it (consumer satisfaction), it is clear that redistribution is the answer. Base premise: the most affordable automobiles require mass and batch production regardless of platform flexibility. Once an automobile is produced, the best result for the producer and consumer is distribution of the product to the highest demand in the shortest period of time at the lowest cost. Thus, the current structure of mass production and build-to-stock distribution to franchise dealers cannot be replaced. Nonetheless, it is extremely unlikely that any dealer enjoys the highest demand for any specific vehicle they have in stock while it is very likely that another dealer (same franchise) has the highest demand for the specific vehicle but lacks the vehicle. As such, distribution of automobiles to the highest demand in the shortest period of time at the lowest cost is impossible without redistribution. Every other possibility is a compromise of value and profit.

020 | Wholesale Mechanism Premise

From all perspectives, a market is truly amazing. Instantly and continuously, markets will optimally coordinate the complex knowledge and behavior of billions of individuals and unknown variables that are beyond the reach of any device. By enabling sellers and buyers to exchange goods and services for money, markets establish prices and thus, enable effective decision making.

Example: Dealer (A) has a new vehicle (invoice $21,000) that has been in-stock for 90 days with an established wholesale price currently at $20,600. Dealer (B) has a customer for that specific vehicle but does not actually have the vehicle. Thus, Dealer (B) offers $20,700 to all dealers that have that specific vehicle in-stock. In response, dealer (A) quickly accepts the offer. As such, the specific vehicle is worth more than the $20,700 to dealer (B) while $20,700 is worth more than the specific vehicle to dealer (A). As a clear result, supply has moved to higher demand while dealers (A) and (B), the carmaker, and the customer are all far better off.

021 | Automobile Redistribution Value

The moment a new vehicle is delivered to a dealer is the very moment that the industry structure starts a chain reaction of unfortunate events that compromise value and thus, profits. In the current structure, all carmakers, dealers, and customers lose relative to their justifiable expectations, i.e. a negative sum game that ignites hyper competition. With an appropriate vehicle wholesale market structure, redistribution would solve the distribution inefficiencies to the greatest extent physically possible. Vehicle redistribution would enable dealers to stock less inventory (lower cost and risk) while providing their customers with almost any model and options they could possibly want, thus, raising consumer satisfaction (higher sales) at lower cost (higher profit), i.e. a positive sum game.
022 New Automobile Wholesale

The premise that redistribution will solve many of the inefficiencies resulting from initial distribution is not new. To enable redistribution, carmakers provide a trade or locator system that enables their dealers to search other dealer’s stock (same franchise) for specific models with specific options. To its credit, dealer trade enables dealers to locate pending vehicle orders, vehicles in production, and vehicles in transit. Moreover, dealer trade typically incorporates commercial finance; thereby enabling dealers with transparency of most regional orders and inventory while providing a rather smooth settlement process in the event of a trade. Utilizing the dealer trade system, dealers are far more likely to satisfy customers than otherwise, thus explaining why dealer trade enables about 4 million trades that equal roughly 30 percent of new vehicle retail in the states according to PwC.

023 Dealer Trade Interactions

To search and locate the vehicle needed, a manager will simply enter the vehicle criteria into the dealer trade system. In response, the system will provide a list of exact or close matches. While some systems require the initiating manager (A) to call the other managers (B), others systems include electronic messaging for trade requests. Either way, manager (A) will experience difficulty and frustration contacting other managers (B). While the list includes dealer cost information, the list does not show if the other managers (B) are willing to wholesale the vehicle and if so, at what price. Assuming that manager (A) is able to contact managers (B), manager (A) is in an extremely poor negotiating position. After manager (A) finally contacts and completes a trade with manager (B), manager (A) must arrange freight among other tasks that consume precious time. Since the need for dealer trade is almost always at the same time when managers (A) and (B) have no time to spare, the system is found to be very arduous indeed. In reality, dealer trade is designed more for government projects than automobile retail, which is especially true for high volume dealerships.

024 Dealer Trade Challenges

Since dealer trade (new vehicle wholesale) lacks a price mechanism with negotiating capabilities, redistribution is truly crippled. Without a price mechanism, dealers lack an avenue to wholesale their aging and/or unproductive inventory. Therefore, dealers cannot relieve “inventory pressure” and are forced to retail their current inventory rather than maximizing sales and profits by providing what their customers actually want. In reality, dealer trade is inefficient and a last resort.

Example: Dealer (A) trades with dealer (B) on the dealer trade list. Knowing it is far more likely that a dealer other than (B) has a greater need to wholesale that specific vehicle, assume that dealer (H) is willing to wholesale the same vehicle for $500 less. With dealer trade, dealers (A) and (H) as well as the customer and carmaker all lose because supply will not optimally move to demand. With a price mechanism, the intentions of dealer (H) are known, supply optimally moves to demand, wholesale price is maximized, inventory pressure is relieved, cost is reduced, and retail sales will increase. In sum, everyone is better off.
New Vehicle Opportunity

When combining the arduous nature and meager market design of dealer trade, it is clear that the 4 million dealer trade transactions are not a reflection of dealer trade efficiency but actually show the extreme need for new vehicle redistribution. In the face of overwhelming evidence, some may still believe that new vehicle wholesale is only of marginal value. However, they should understand that thousands of dealers would willingly wholesale millions of new vehicles for more or less than cost if a true market existed, thus, moving supply to higher demand and enabling massive value. They should also understand that the aforementioned supply-to-demand principles are not subject to opinion; they are facts. With appropriate thought, it is fair to conclude that dealer trade must be radically improved. In defense of dealer trade, an efficient new vehicle wholesale market is unlikely unless it is a franchise specific market (brand A to brand A) but incorporates all brands (brand A through Z) to support integrated freight and settlement as well as other factors such as real time wholesale valuations. Given a rather short period of time, numerous indicators suggest that such a new vehicle wholesale market could surpass ten million U.S. transactions if designed properly.

Used Automobile Distribution

In the same way that a new vehicle is very unlikely to maximize value at any given dealer, used vehicle value is best served by redistribution as well, if not more so. Unlike new vehicle distribution and the arduous dealer trade system, the auctions have provided a crucial wholesale mechanism enabling dealers to buy and sell used vehicles in their own best interest since 1938. As such, the auctions assist millions of used vehicles to greater demand every year. Knowing that used vehicle value is critical to new vehicle sales, it is certain that the auto auctions have indirectly assisted millions of new vehicle sales as well. Adding to their auctioneering services, many of the auctions provide important services that likewise increase used vehicle value. In that way, the auctions are probably the foremost vehicle reconditioning practitioners in the world, manage more titles than any other entity in the world, and marshal more used vehicles than any other entity in the world while providing intermediate distribution points between supply and higher demand. Furthermore, some auctions provide commercial finance (floor plan) services for independent dealers, thus assisting independents with buying trade-ins from franchise dealers, thereby improving all vehicle values.

Used Vehicle Remarketing

In addition to dealers, the wholesale market also services vehicle remarketers such as carmakers, finance and lease institutions, corporate as well as government fleets, and rental car companies that collectively wholesale more than 8 million used vehicles in the U.S. annually. Just like dealers, remarketers seek the highest wholesale price for their vehicles in the shortest period of time at the lowest cost. To that end, the auctions provide a critical link and services between the remarketers and dealers who ultimately retail those used vehicles to consumers. Here again, the auto auctions provide a massive amount of value to the industry with their auctioneering and secondary services.
Automobile Wholesale Formats

The used automobile wholesale market consists of dealers, remarketers, brokers, and wholesalers that currently interact in three basic formats of trade to enable used vehicle to higher demand:

1. **Individual format with one buyer and seller**
2. **Auction format with multiple buyers and sellers**
3. **Electronic format with many buyers and sellers**

While one rental car firm has mastered the individual format (one to one) and some remarketers benefit from online wholesale (electronic format), the auction format is clearly the best available, hence the 9.7 million auction transactions in 2004 or about 41 percent of the estimated 24 million used vehicle wholesale transactions nationally. While the individual format costs less up front and is usually faster, auctions enable secure settlement, easier freight, commercial finance, and vehicle arbitration. Because the auction enables multiple buyers as compared to the individual format as well as less risk, the auction is by far more likely to move supply to higher demand and thus, will almost always enable higher net proceeds. The individual format is also fraught with malfeasance, which the auction tends to thwart. As will be described in greater detail presently, the electronic format holds the greatest promise but is currently generations away from adoption and maximizing used vehicle value. In comparison, the auction enables physical inspection of the used vehicle among other advantages, thus, enabling buyer confidence that translates into higher prices.

Physical Auction Interaction

If one thousand used vehicles were tested, the auction format would outperform the individual and electronic format. However, the same component (physical location) that enables auction value likewise reduces its value. The greatest downside of the auction process, especially for dealers, is the transporting a vehicle to the auction before it is sold. Adding to the time of arranging freight to and from an auction, buyers and sellers must typically travel to the auction themselves, generally the day prior. Once they arrive at the auction, they check-in and then sellers will attempt to sell their vehicles to relatively few buyers while buyers will attempt to buy vehicles from relatively few sellers. While the physical location enables buyers and sellers to gather, the associated cost, time, and risk also limits the amount of potential interaction while forcing an inefficient price mechanism.

Current Interaction Mechanism

At the auction, the bidding is open to buyers that bid up the price until the bidding has paused for a period of time that brings the auctioneer to conclude the bidding; otherwise known as dropping the hammer. Consequently, the winning bidder pays the last price bid if the seller accepts the price. If the event is announced as absolute, the seller must sell at the last price bid. The "winner's curse" contends that bidders at an auction are dubious regarding the exact value of products being sold and thus, they are guessing. Assuming bidders have reasonable information about product value, the average of all the guesses is most likely to be correct. Therefore, the winning bidder has paid the price furthest from actual value, according to the winner's curse it is the highest value possible.
031 Inefficient Interaction Mechanism

The "winner's curse" assertion that a price-ascending mechanism will bring about the highest value is simply false. If the "winners curse" were actually valid, then a price-ascending mechanism would be the best price mechanism for vehicle value. However, the assumptions employed to draw the "winner's curse" conclusion are examining factors inside of a jar. In reality, the number of guesses that creates the average or the most accurate value is only being considered within the time and place of the mechanism. Because value is almost always greater at another time and place and a price-ascending format limits the time while the auction limits the place, the number of guesses cannot equal the whole and thus, cannot maximize value. Example: 500 dealers are at an auction while 50,000 other dealers are not. Clearly, the 50,000 dealers are far more likely to maximize the value of any vehicle at the auction. Moreover, all 50,500 dealers are more likely to maximize value before or after the two minutes that a vehicle is available during a price-ascending mechanism. In reality, maximum vehicle value could be well before or just after an auction. It could be a thousand miles away. However, it is most unlikely during the exact time and at the place of any auction.

032 IAutomobile Auction Impediments

Due to lack of data, it is difficult to calculate the cost of the auction and individual formats compared to efficient vehicle wholesale. To estimate the cost of the auction format, NAMX assumes:

1. A three week average to wholesale the vehicle
2. $2,500 of annual depreciation per vehicle
3. $700 of annual interest per vehicle ($10,000)
4. Five vehicles wholesaled or purchased per seller and buyer
5. $12,000 of monthly compensation per seller and buyer
6. $650 of travel cost per buyer and seller
7. $150 of freight cost to and from the auction

Utilizing those assumptions, the average cost of each vehicle sold at the auction is approximately: $184 employee cost, $260 travel cost, $300 freight cost, $70 of no-sales fees, $144 depreciation, $40 of interest, and $300 of buyer and seller fees. The sub-total per vehicle wholesaled is: $1,298.

033 IAuction Entrance Impediments

While it is critical to calculate costs in terms of direct cost, it is also crucial to understand barriers that thwart supply to demand, increase other costs, and reduce sales. In the auction format, sellers spend about $626 per unit on average before selling the vehicle - clearly a high barrier. Since the price-ascending mechanism cannot maximize value, buyers and sellers incur a high failure rate. In fact, about 17.5 million vehicles entered the auctions last year and only 9.7 million actually sold, thus, 7.8 million did not sell. Assuming that half the vehicles not sold were already at the auction, the $626 of entry costs plus $150 of additional freight must be multiplied by 3.9 million and divided by the 9.7 million sold, resulting in another $312 per vehicle. Adding back-office administrative cost for the buyer and seller of at least $40 per vehicle, the estimated auction cost is $1,690 per vehicle.
Used Vehicle Wholesale Market - 24 Million U.S. Transactions

New Vehicle Sales → Vehicles In Operation → Vehicles Unaffected

Consumer → Captive

Finance → Rental → Fleet

Reconditioning → Auction

Broker → Wholesaler

Dealer

Floor Plant → Bank → Dealer

Transporter
To estimate the cost of the auction format, NAMX assumes:
1. A three week average to wholesale the average vehicle at an auction
2. $2,500 of annual depreciation per vehicle
3. $700 of annual interest per vehicle
4. Five vehicles wholesaled or purchased per seller and buyer
5. $12,000 of monthly compensation per seller and buyer
6. $850 of travel cost per buyer and seller
7. $150 of freight to and from the auction

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\hline
= $1,690 & \text{Cost Per Vehicle Sold} \\
\times 9,700,000 & \text{Vehicles Sold} \\
\hline
= $16,393,000,000 & \text{Industry Impact}
\end{align*}
\]
034 IVehicle Freight Inefficiencies
As part of the opportunity as well as the cause, roughly half of freight capacity goes wasted and on time delivery is the exception rather than the rule. According to the Truckload Carriers Association, the typical vehicle transporter has five loads per week. On average, 2.5 hours are spent waiting to load, 2 hours waiting to unload, 1.1 hours loading, and 1.2 hours unloading for a total of 34 hours per week loading and unloading. Furthermore, the National Automobile Transporters Association (NATA) estimates those transporters run empty over 40 percent of miles driven and with available space more than 70 percent of miles driven, thereby resulting in an overwhelming waste of freight capacity. In reality, vehicle transporters drive their trucks millions of miles empty or partially empty, while passing right by available freight. Those realities increase cost and act as a massive barrier to wholesale, which is primarily due to a lack of communication between capacity and availability. To improve wholesale and retail trade, transporters must be connected to availability in real time.

035 JOverall Wholesale Opportunity
The auction cost calculations assume a $10,000 average vehicle value and exclude the costs of vehicle inspection, reconditioning, or other services such as title transfer, floor plan administration, draft fees, etc. Those costs are too vague and/or transaction specific. Of course, some sellers and buyers experience lower auction costs while others experience higher costs. On average, NAMX calculations are conservative. In fact, evidence suggests that the costs are significantly higher and several firms in the industry contend that the costs exceed $2,000 per vehicle. In total, the cost of the auction ($1,690 multiplied by 9.7 million) is approximately $16.3 billion in the U.S. market alone. Regarding the individual format, NAMX calculates roughly 14 million transactions valued at $8,000 each with a per transaction cost of approximately $50 for freight, $100 for administration, and $150 for human resources or about $4.2 billion total. Because the auction and especially the individual format limits the ability of vehicle supply to optimal demand, thereby limiting consumer satisfaction and vehicle value, the difference in used vehicle value must be estimated. NAMX estimates that an optimal format would increase vehicle value by about 2 percent or $2 billion versus the auction format and by at least 10 percent or $11 billion compared to the individual format. In total, NAMX estimates the opportunity in used vehicle wholesale to be at least $33.5 billion in the U.S. market.

036 JOverall Redistribution Opportunity
Because used vehicle value impacts new vehicle value, it is certain that the estimated $33.5 billion of used vehicle opportunity reduces the consumer’s desire and ability to buy a used vehicle while also reducing the consumer’s ability to buy a new vehicle. Simultaneously, inefficient new vehicle distribution is also reducing the consumer’s ability and willingness to buy a new vehicle, thereby reducing all vehicle prices and sales. Based on 17 million new vehicles sales worth $27,000 each, NAMX estimates that poor used and new vehicle wholesale reduces the new vehicle values by at least 2 percent or $9.1 billion for a total (33.5 + 9.1) redistribution opportunity of about $42.6 billion.
037 | Recent Auction Improvements
As previously mentioned - the auctions have provided tremendous value to vehicle retail for almost seventy years and continue to do so. In the U.S. market, there are about 285 automobile auctions. Approximately half of those 285 auctions attract late model vehicles, high volume transactions, and provide complete vehicle reconditioning and marshalling services. In late 2000, Manheim Auctions, the world leader with 115 auction facilities globally, acquired ADT Auctions for about $1 billion cash and subsequently invested some $200 million to update their auction facilities. Since that time, the auto auctions have improved appreciably with innovations such as Auction Access: a card allowing buyers and sellers to enter and exit numerous Manheim Auctions with greater ease. Moreover, the auctions have also added live video, which enables buyers to bid on vehicles in real time with a personal computer and Internet connection, thereby increasing the likelihood of supply moving to optimal demand while simultaneously reducing interaction costs. With consideration, live video of auction activity is probably the greatest auction improvement ever. As of 2005, Adesa (the second largest chain with 53 used vehicle and 28 salvage auctions) raised approximately $150 million to improve their market technology while most of the other auction companies are improving as well.

038 | Electronic Wholesale Market
While new vehicle wholesale trade stands fast in an abyss of inefficiency, the auctions have sought better ways to enable remarketers and dealers with electronic systems for used vehicle wholesale trade over the Internet. By the late 1990’s, Manheim began their efforts to improve used vehicle wholesale with Manheim Interactive, which was originally based in Orlando and is now known as Manheim Online www.manheim.com based at their headquarters in Atlanta. Manheim was closely followed by various entrepreneurs as well as other auction chains such as Adesa www.adesa.com. Because carmakers also act as remarketers, some carmakers have chosen the electronic systems provided by auctions, some have chosen the electronic systems provided by entrepreneurs, some have built their own system such as www.gmonlineauctions.com, and many have simply chosen to utilize combinations of the above, which is also true for other remarketers such as car rental firms.

039 | Electronic Business Markets
The premise of an electronic business market (EBM) is the enablement of interaction between the sellers (supply) and buyers (demand) of various products and/or services. In total, those business transactions are valued at an estimated $7 trillion while U.S. vehicle wholesale is valued at roughly $300 billion annually. Currently there are two types of electronic markets:

1. **Catalog Markets** that provide product information and links to sellers but do not manage an actual transaction. Catalog markets typically generate revenue based on advertising sales

2. **Intermediation Markets** that provide search capabilities, product information, buyer and seller information, as well as price and negotiation

Albeit weak and far from actionable, some intermediation markets provide some form of a payment and product delivery assurance. Intermediaries usually generate revenue with transaction fees.
Electronic Market Challenges

Without an integrated price mechanism, the catalog markets are practically worthless in effectively moving the supply of business products and services to demand. As the only electronic business market alternative, intermediation markets are seeking to match the needs of sellers and buyers by enabling a greater likelihood of an actual transaction than a current or traditional market. The two primary advantages of an electronic business market compared to a traditional market are:

1. The ability to provide buyers with faster and cheaper access to a far greater amount of supply, thereby increasing their performance
2. The ability to provide sellers with far more buyers and thus, higher prices in a shorter period of time at a lower cost, i.e. liquidity

Since those elements are the foundation of any market, such advantages are massive. However, the basic structure and virtual nature of the intermediation markets severely limits their ability to enable transactions despite advantages. In short, they transfer information that is not necessarily accurate and thus, they lack the ability to guarantee representations, payments, and deliveries.

Bilateral Acceptance Dilemma

In seeking to match the needs of sellers and buyers, the intermediation market must be easier to use while requiring less time and cost than the traditional market. In an electronic market, buyers and sellers usually lack an established relationship while the physical inspection of products and/or services is not possible. As such, an intermediation market must enable perfect or at least greater confidence than the traditional market rather than less. If an intermediation market is successful in providing those components, buyers and sellers will most likely accept the market, otherwise they will not. As more buyers accept the market, the market will become more valuable to the sellers. As more sellers accept the market, the market will become more valuable to the buyers. While the amount of sellers and buyers needed for critical mass may not be as much as one might imagine, an intermediation market must enable seller and buyer acceptance at the same time, i.e. bilateral acceptance, which requires the aforementioned advantages over a traditional market. Due to the nature of electronic markets, gaining the advantages and bilateral acceptance is truly a challenge.

Electronic Market Opportunity

Other factors of bilateral acceptance are natural opportunity and market design. Since it is unlikely that an intermediary can create a new market, it is important, if not required that an intermediation market attack opportunity in a natural market wherein trade is based on buyers and sellers rather than established relationships. Example: Manheim Online is an intermediation system that seeks to attack opportunity in a well established market with similar buy and sell interactions. Conversely, another initiative named Covisint attempted an intermediation system between carmakers and tier suppliers for the trade of component production. However, such production is not readily tradable since it is based on future production and thus, is difficult to estimate for quick response. In part, Covisint failed because it addressed a market that relied on relationships rather than natural trade.
043 | Electronic Market Structure

Assuming an intermediation system is addressing current market, the market design or structure is absolutely critical, i.e. price mechanism and trade rules. As discussed on pages ten and eleven, a price-ascending mechanism is clearly inefficient, especially for business-to-business. Conversely, an open-price mechanism enabling maximum supply to maximum demand is foremost. However, it is unlikely without critical mass. Because critical mass requires bilateral acceptance while the acceptance requires accurate and guaranteed information that the intermediation markets are very unlikely to provide, an open-price mechanism is also a challenge. Adding to Covisint's misguided attempt at creating a new market, they included a buyer-side mechanism where carmakers would send out their need for component production in the purported exchange for bid and the suppliers would invest the toil to establish a price and then respond. Because that buyer-side mechanism did not force acceptance of the lowest bid, carmakers would simply use the lowest bid to negotiate a deal elsewhere. Thus, the Covisint system was not acceptable to the seller. In reality, Covisint was not an exchange; it was merely an electronic request for quote (RFQ) system, as it is today.

044 | Electronic Vehicle Wholesale

The vehicle wholesale landscape is fraught with opaque nuances, the actual vehicles present a vast array of variances, the buyers and sellers tend to resist change, and many products as well as services are needed to facilitate wholesale trade. Thus, the challenges of an intermediation market for vehicle wholesale are far greater than meets the eye. Perhaps those challenges are described best by the current electronic vehicle wholesale systems. As aptly stated in a combination of their user agreements, the current systems refer to themselves as a "venue" or "website", not a market. Paraphrasing the agreements "we do not provide warranties, express or implied, with respect to the quality, safety or legality of the vehicles advertised, the accuracy of the information about vehicles, the ability of sellers to sell or the ability of buyers to buy." "We cannot verify the information that the sellers supply or guarantee payment for vehicles wholesaled through this website." "If you rely on this website, you do so at your own risk." In part, their user agreements tell the story. The current systems do not meet the challenges of an intermediation market because they cannot enable the core elements of vehicle wholesale, i.e. accurate and guaranteed representation and settlement.

045 | Carmaker Wholesale Systems

While the current systems are very far from enabling an electronic vehicle wholesale market, some carmakers currently benefit from the electronic wholesale of used vehicles directly to their franchise dealers (captive system). By virtue of agreement, most of the used vehicles owned by carmakers must be wholesaled directly to their franchise dealers. Thus, captive systems are not subject to the same challenges as other systems. In spite of similar as-is language in their user agreements and other areas of distrust, dealers do tend to trust the representations made by their carmaker. Thus, captive systems experience a lower loss of vehicle value and user acceptance than other systems.
I Captive Electronic Wholesale

Compared to the traditional market, the captive systems have reduced wholesale cost per vehicle, increased their dealers' retail capabilities, increased their used vehicle wholesale prices, increased their net proceeds per used vehicle, and added ancillary revenue with transactions fees. However, the captive systems are subject to other challenges. Because captive systems are limited to one or few franchises, they will never enable their dealers to maximize new automobile sales and prices.

**Example:** A Chevrolet dealer is selling a new vehicle to a customer with a Volvo trade-in. Due to the lack of Volvo dealers in a (GM) captive system, the Chevrolet dealer is unlikely to maximize the value of the Volvo trade-in and thus, is unlikely to maximize Chevrolet sales and prices. Moreover, the value of the used Volvo is likewise compromised, which is true vice versa for Chevrolet. Based on the reciprocal relationship between new and used vehicle values, the loss of new vehicle value reduces used vehicle value which reduces new value and so on. Therefore, optimal vehicle wholesale must connect all dealers and remarketers with one industry-wide market while likewise maintaining all franchise agreements. While the captive systems have improved their values, it is impossible for them to maximize their used or new vehicle sales/prices.

II Electronic Delivery Challenges

Vehicle freight is another reason that optimal vehicle wholesale requires one industry-wide market. While financial securities can be digitally transferred, vehicles cannot. Without integrated freight, electronic vehicle wholesale will not scale to critical mass because the volume would create chaos. For example: a buyer in Atlanta buys two vehicles in Dallas, three in Miami, and five in Detroit. In the current electronic systems, the buyer will incur extreme difficulty arranging partial loads from numerous locations. As a result, the core value of connecting many buyers and sellers would be vastly diminished. Moreover, the delivered cost and time of buying a vehicle in a current system is unknown to the buyer before bidding, which increases risk while reducing acceptance and value. Because the current and captive systems cannot integrate transporters, available freight capacity will continue to pass right by available freight. In reality, electronic vehicle wholesale must be one industry-wide market with enough scale to integrate all vehicle wholesale products and services.

**Example:** A buyer in Chicago buys a vehicle in a current or captive system. The vehicle is located in Orlando and was ambiguously represented as extra clean. After the buyer arranges freight, the vehicle is delivered and the buyer disagrees with the representation and thus, rejects the vehicle. *Who is right and who is wrong?* Since used vehicle conditions are subject to opinion, perhaps they are both right or wrong while any attempt at arbitration is likewise subject to opinion and thus, just as ambiguous. Perhaps the vehicle was misrepresented, perhaps not. Perhaps the buyer simply has cold feet. *Either way, who pays the cost of freight to Chicago and then back to Orlando?* Here again, electronic vehicle wholesale must be one industry-wide market to enable enough scale to inspect and guarantee all vehicles.
049 Electronic Certainty Challenges

In large part, the value of all vehicles produced by carmakers and wholesaled by remarketers relies upon the performance of the estimated $200 billion of new and used vehicle inventory held by U.S. dealers. To enable the wholesale trade of dealer inventory, an electronic market must ensure that every vehicle in the market can actually be wholesaled and that every bid is actionable, otherwise, bilateral acceptance is unlikely. However, the current systems tend to rely on seller entry and exit of vehicles for wholesale, which is a fundamental mistake. Because dealer inventory is constantly changing and dealers are unlikely to remove the vehicles they sold in another forum, the buyer's ability to bid with certainty in current systems is low due to the lack of dealer systems integration, thus, reducing price and bilateral acceptance. An electronic vehicle wholesale market requires the scalability to economically justify all factors mandated by the core principles of interaction, such as certainty. Therefore, one industry-wide new and used vehicle wholesale market is the best answer.

050 Invisible Hand Principles

Applying the core principles to the design of one industry-wide vehicle wholesale market is critical. Perhaps those principles are best explained by the father of economics, Adam Smith. In his book: The Wealth of Nations (1776), Smith proved his crystal clear view of economics was extraordinary: "Every individual endeavors to employ his capital so that its produce may be of the greatest value. He generally neither intends to promote the public interest, nor knows how much he is promoting it He intends only his own security, only his own gain. And he is in this led by an invisible hand to promote an end which was no part of his own intention. By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it." Timeless!

051 Invisible Hand Application

With one paragraph, Smith explained how the self-regulating "invisible hand" of self-interest will continuously enable the best results for all sellers and buyers to the extent they are connected. In describing the true nature of the "invisible hand", Smith also wrote: "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest." To the extent that more buyers are connected to more sellers is at least the extent that the "invisible hand" will enable both. Due to physical realities, an electronic exchange is the best possible system to maximize interactions between all buyers and sellers. When buyers and sellers act in their own best interest, they instantly solve the problems of what, how, and for whom with the greatest efficiency and effectiveness possible within the limits of their interconnectivity. Since an electronic exchange will maximize that connectivity, it will enable the highest allocative efficiency, i.e. the maximum value and profits possible within the limits of available resources. In other words, no other system, platform, or scheme can possibly enable greater efficiency and/or effectiveness. Designed correctly, an electronic exchange will enable the best possible results within a current market, i.e. a market with constant and natural buy and sell interactions, such as vehicle wholesale.
052 | NAMX Research Background
As discussed, the challenges of an electronic vehicle wholesale exchange (NAMX) are numerous and significant. However, the opportunities are literally thousands of times more significant than the challenges. With extensive experience in automobile retail, wholesale, finance, transportation, service, and parts, NAMX started defining the opportunities to improve franchise dealer profitability in October of 1997. At the outset, NAMX enjoyed a high understanding of the automotive industry and opportunities but lacked the complete picture. As such, research and analysis were needed. To that end, NAMX invested years researching and cross-referencing countless books, documents, white papers, case studies, and websites to gain a greater understanding of the interconnectivities that constitute the automobile supply chain. After combining the research, NAMX experience, and an array of interviews with practitioners throughout the supply chain, it became absolutely certain that one industry-wide vehicle wholesale market would benefit every dealer, carmaker, customer, and transporter to a far greater extent than any other possibility. The only question was how...

053 | NAMX Processes Background
At the outset, NAMX defined the strengths and weaknesses of each product and service enabling vehicle wholesale trade. After establishing a landscape, NAMX asked and answered the following:

1. Which parts currently involve physical processes and which involve electronic processes
2. Where is it practical to add electronic processes to the current physical processes
3. Where is it practical replace current physical processes with electronic processes
4. Where electronic processes currently exist, how can they be measurably improved

In combination with the core principles, a blueprint was designed to enable near-perfect wholesale trade, i.e. the National Automobile Market Exchange, NAMX. Over a period exceeding five years, NAMX shaped the entire design based on the daily activities and behaviors for each type of future participant, partner, and associate. In sum, NAMX was exhaustively scrutinized and optimized until development, deployment, adoption, operations, and profitability was beyond a reasonable doubt.

054 | NAMX Business Background
This document will show how NAMX will vastly improve the vehicle wholesale markets that now enable an estimated $1.1 billion of trade per business day. It will describe how NAMX will enable the highest amount of connectivity between sellers and buyers while also providing the total and guaranteed cost and time of every factor prior to trade. It will describe how the markets will be enabled by the first precise vehicle valuation system as well as an inventory management and freight delivery system that will exceed the efficiency and effectiveness of Wal-Mart and FedEx systems, respectively. It will show how NAMX will enable dealers to use the wholesale markets as their own inventory as well as a seamless settlement system guaranteeing all payments and titles. It will show an implementation ensuring the fastest possible adoption and an operational plan that will produce a potential revenue exceeding $3.4 billion for NAMX and $4.9 billion for NAMX auction partners based solely on current trade rather than allowing for likely growth based on efficiencies.
055 | NAMX Interconnected Premise

The current vehicle wholesale markets rely on many products and services to enable actual trade, i.e. inspection, valuation, freight, marshalling, storage, reconditioning, auctioneering, titling, finance, banking, and information integration. In current markets, almost all of those products and services are so severely separated from actual wholesale trade that their capabilities are vastly diminished while their costs are artificially inflated. In short, their value to the new and used vehicle wholesale markets are artificially low, thereby creating massive wholesale barriers and thus, reducing all retail capabilities. NAMX will radically improve new and used vehicle wholesale by connecting all of the products and services that facilitate wholesale trade into one industry-wide new and used vehicle wholesale market. To that end, NAMX has designed applications for each product and service that will improve their capabilities while instantly and optimally distributing them to the highest point of demand at almost zero cost. As a result, the value of those products and services will maximize because their usefulness will be optimally embedded in every transaction or instantly available to the seller and/or buyer as juxtaposed to the current toil, time, and cost of access. Moreover, the cost of providing the products and services will minimize due to near free distribution, thus reducing trade barriers while increasing capabilities and moving all supplies therein to their optimal demand.

056 | NAMX Interconnected Markets

At first glance - the word “market” and “exchange” may seem redundant in the NAMX acronym: National Automotive Market Exchange. However, they are describing a constant interconnectivity between a product and/or service “market” and a vehicle wholesale “market” whereby the optimal “exchange” of the product or service enables the optimal wholesale “exchange” of a new or used vehicle within one industry-wide market, i.e. “NAMX”. To that end, the same real time connectivity and applications mentioned above will radically amplify the quantity and quality of information for every product and service in the facilitation and wholesale markets. Owing to those relationships, the correlation coefficient (ability of information to reflect reality) will increase to such an extent that NAMX can guarantee all representations and transactions without exception. Therefore, all buyers and sellers will be able to buy and sell with total confidence in moving supplies to optimal demands.

057 | NAMX Interconnected Leverage

NAMX will provide all buyers in the wholesale market with the following pre-trade transparency:

1. The negotiable wholesale price of every vehicle in the market
2. The cost and time of freight delivery for every vehicle in the market
3. The cost and time of reconditioning for every used vehicle in the market
4. Real time and precise vehicle valuation and the total price and time of delivery

By adding a predetermined profit margin in NAMX, dealers can leverage millions of vehicles in the wholesale markets as their own inventory in real time, thereby providing customers with practically any vehicle they could possibly want within 4 hours to 4 days. As a result, NAMX will transform automobile distribution from clearly inefficient to the world’s most efficient and effective distribution.
058 [ NAMX Marketplace Membership ]

NAMX will be a membership organization with membership regulation of market trade. Therefore, every commercial entity and user interacting with NAMX will be a member. The member structure will enable dealers and carmakers to shape the rules of trade while also protecting the ability of NAMX to profitably guarantee every representation and transaction. Given the market structure, it is unlikely that a member will break market rules or attempt to deceive NAMX. To further thwart dishonest acts and ensure honest market trade, NAMX will maintain the right to suspend or expel any specific user and/or business entity (member) if one or numerous acts warrant such judgment. In that way, NAMX will prudently use the suspension or expulsion of membership, i.e. the loss of everyday NAMX capabilities, to ensure honesty and safeguard the viability of the NAMX markets.

059 [ NAMX Interconnected Regulation ]

Market rules should not be set solely by the market itself or limited to any moment in time. Rather, the best arrangement is a constant legislative and governing body representing the membership. Emulating the most successful governing instrument ever written, the United States Constitution, market regulations will be managed by six regional boards and one national board. The regional boards will consist of dealers elected by dealers while the national regulatory board will consist of dealers and carmaker representatives equally. The regional and national boards will approve the initial market rules and propose as well as approve new market rules. They will also approve any new system proposed by NAMX management and oversee any appeal of a NAMX decision such as member suspension. To ensure that market regulation does not impede NAMX profitability, all regulatory decisions with a potential conflict will require the consent of the NAMX corporate board.

060 [ Targeted Marketplace Members ]

In the current market, there are 21,650 franchise dealers and roughly 59,800 independent dealers. Of those dealers, NAMX estimates that 85 percent of franchise dealers (18,308) and 25 percent of independent dealers (14,969) represent about 90 percent of all dealer retail and wholesale activity. The variance for independent dealers is due to a high amount of state licenses granted to dealers that retail less than 10 vehicles per year while many states recognize wholesalers as dealers, thus skewing the numbers. The NAMX target dealers are those representing more than 90 percent of retail and/or wholesale activity. NAMX members will also include remarketers that wholesale more than 10 million used vehicles annually. Remarketers are carmakers, finance and lease institutions, corporate as well as government fleets, and rental car companies. Finally, NAMX membership will include vehicle transporters that consist of roughly 10,000 new vehicle carriers and 10,000 used vehicle carriers with a capacity of 4 to 11 units per truck and a range from regional to nationwide. In addition, targeted transporter members also include an estimated 20,000 roll-backs, wreckers, and drive services with a capacity from 1 to 3 vehicles and a range from local to regional. In total, the targeted NAMX membership will exceed 90,000 commercial entities and 1 million daily users.
Targeted Marketplace Partners

To enable the interconnected premise, NAMX will integrate the many providers of all products and services that facilitate wholesale as marketplace partners. They are:

1. **Dealership Services** will consist of systems such as phone logging and ecommerce
2. **Dealership Systems** will consist of Dealer Management System (DMS) integration
3. **Commercial Finance** will consist of inventory floor plan for dealers and remarketers
4. **Commercial Banking** will consist of banking services for all members and partners
5. **Industry Information** will consist of data concerning automobile retail registrations
6. **Logistical Systems** will consist of freight tracking, routing, and communications
7. **Vehicle Information** will include data about vehicle history as well as repair databases
8. **Automobile Inspection** will augment the NAMX mobile vehicle inspectors (auction)
9. **Vehicle Marshalling** will act as intermediate distribution points and storage (auction)
10. **Fixed Reconditioning** will provide integrated mechanical and cosmetic repairs (auction)
11. **Mobile Reconditioning** will provide light vehicle repairs such as paintless dent removal
12. **Vehicle Auctioneering** will manage used vehicle wholesale that will not qualify in NAMX
13. **Titling Perfection** will manage vehicle title concerns directly with the DMV in all 50 states
14. **Technology Systems** will enable members to easily upgrade hardware and software

Targeted Partnership Interactions

In the markets, members will be establishing an equilibrium price for new and used vehicles as well as freight capacity while partners will be providing their products and services at a set price, albeit a price the partners’ can adjust at any time. In that way, the many commercial finance as well as banking institutions will be a member and a partner. The administration system for each partner is designed specifically for the product and/or service they provide to the markets. The nature of the NAMX partnerships will vary depending on the "marketplace partner" but the premise is the same for each: NAMX will reduce their distribution costs to almost zero while increasing the value of their products and services at the same time. Much like the members, partnerships will also be subject to suspension and expulsion, which can arise if the products and/or services are misrepresented.

Marketplace Revenue Strategy

The value of a vehicle wholesale market relies heavily on the number of buyers and sellers in the market. As the number of sellers' increases, the number of vehicles available to buyers' increases, thereby increasing the likelihood of an actual transaction based on higher transparency for buyers and higher liquidity for sellers. Thus, the value of NAMX will increase for each new buyer or seller added. To bring about the fastest and highest amount of buyer and seller acceptance, the revenue strategy will enable the lowest possible or zero entry and pricing impediments for supply and thus, places the onus of marketplace profitability on the buy-side to enable the greatest overall value.
Marketplace Transaction Fees

The following is the proposed fee structure for NAMX revenue and subject to further collaboration with members, partners, and investors. For the purposes of modeling and comparison, the NAMX fee for entering and selling a new vehicle will be zero. The fee for buying a new vehicle will be $88. For used vehicles, the fee for entering and pricing will be zero. However, all used vehicles require a NAMX inspection. If the seller wholesales the vehicle in the NAMX market, the inspection will be zero; otherwise the inspection will be $58. The used vehicle buyer fee will be $174 per transaction. For freight, the transporter fee will be $14 per vehicle accepted in the freight market. Those four fees are the total of all NAMX market trade, services, and related applications - simple, consistent, and straightforward. Of the 5 million new vehicle wholesale transactions in the U.S. market, all of them will qualify in the NAMX market ($88 x 5 million) for potential revenue of $440 million. Of the estimated 29 million used vehicle wholesale transactions, NAMX will initially limit trade to 7 years and 70,000 miles for about 12 million qualified trades ($174 x 12 million) and potential revenue of $2 billion. Expecting roughly half of all used vehicles entered to be sold in another forum, NAMX calculates two inspections for each used vehicle transaction ($58 x 12 million) for potential revenue of $696 million. The freight fee will apply to all transactions ($14 x 17 million) for potential revenue of $238 million. Combined, the potential NAMX revenue is estimated at roughly $3,462,000,000.

Marketplace Value Proposition

Based on near zero entry barriers as well as an automated vehicle entry system that will be precise and easy to control, NAMX expects dealers to enter a large portion of their $200 billion of vehicle inventory into the NAMX markets. In fact, almost every dealer collaborating with NAMX said they would enter their entire inventory, which is logical when considering that all vehicles are most likely worth more at another dealer and that all vehicles are for sale at some price. Because NAMX will maximize the buyer's access to sellers combined with real time and accurate valuations, complete and guaranteed representations, easy and seamless buying, guaranteed settlement and deliveries, as well as real time retail integration, dealers will easily maximize retail prices by actually providing what consumers want and thus, maximize the wholesale prices for $200 billion of dealer inventory and about $100 billion of remarketer wholesale transactions at any given time from anywhere.

Transportation Value Proposition

For all vehicle transporters (large carriers, medium carriers, small carriers, and drive services), the NAMX value proposition will just as overwhelming. Today, those transporters drive right by the available freight with available capacity because they are disconnected from the source of freight. Moreover, they rely on dispatchers or brokers that fill about half of their capacity at a cost of about $25 to $50 per vehicle. In real time, NAMX will connect those transporters to all freight availability at an accurate and fair market price, including the ability to accept freight while en route, thereby removing empty backhauls. As a result, their costs will be lower while their revenue will be higher.
067 Marketplace Value Comparison
Compared to the physical auction process, NAMX will reduce trade cost by more than 80 percent primarily because NAMX will not need to move people and products to and from the auction. Thus, all dealer management and inventory will remain available in the retail market while simultaneously in the wholesale market. Moreover, NAMX will reduce the time to process a wholesale transaction by more than 90 percent. NAMX will also increase wholesale availability from two minutes once per week to 24 hours per day 7 days per week. Furthermore, NAMX will increase the amount of buyers available to sellers from a few in an auction lane to every possible buyer while increasing the amount of vehicles available to buyers from a few in the auction lane to all available vehicles. As such, all sellers and buyers will continuously realize the best possible result. Since the NAMX vehicle inspection is free if sold in NAMX, the remarketers will realize maximum wholesale price for at least 10 million vehicles annually at near zero trade cost, thus maximizing vehicle availability for all dealers. While NAMX certainly respects the current electronic vehicle wholesale systems, it is very clear that they do not enable the most fundamental requirements of vehicle wholesale trade whereas that is the very basis of NAMX. Thus, there is no comparison between them and NAMX.

068 Dealership Adoption Challenges
Some will assert that dealers are slow to adopt regardless of value. Clearly, some dealers do tend to resist change. However, if they understand it and it actually improves the retail process, they will adopt at a neck-breaking pace. Consider some recent examples of adoption such as dealership websites, online finance applications, and the Manheim Market Report (vehicle valuation) to name a just few. The simple truth is that most carmakers and service providers do not understand the many nuances that comprise vehicle retail. Exacerbating that reality, the average dealer does not understand the possibilities of technology and thus, cannot provide much assistance. As a result, carmakers and providers have developed many systems that bring little or zero value to the vehicle retail environment. Thus, those systems were quickly rejected by dealers. Rather than admit that the systems were basically worthless, it is common for those developers to blame dealer adoption.

069 Marketplace Innovative Diffusion
The five primary factors of how fast potential users will adopt are:

1. **Advantage:** does it provide an advantage? Answer: NAMX will provide clear and powerful advantages for all users compared to all current and foreseeable alternatives.

2. **Compatibility:** is it compatible with what the adopters’ do? Answer: NAMX is designed specifically for the daily activities of each specific user.

3. **Reliability:** is it easy for adopters to try, entailing low up front risk or effort? Answer: NAMX and all required hardware will be free, thus entailing zero risk and far less effort.

4. **Observation:** is it easy for potential adopters to observe current adopters’ experiences? Answer: targeted users are a relatively small audience and positive news travels rapidly.

5. **Simplicity:** is it simple to use? Answer: NAMX will be extremely simple, especially for those using the current markets and/or systems.
070 | Marketplace Diffusion Strategy
Dealers represent the vast majority of vehicle wholesale buyers and hold more inventory than any other group in the world. Vehicle transporters are critical to wholesale trade by moving vehicles that weigh thousands of pounds. The NAMX diffusion (adoption) strategy will remove all barriers to member adoption of NAMX by subsidizing the fastest possible acceptance. To that end, NAMX will provide each member with an industrial grade and highly secure wireless system, thereby placing all market systems directly in the hands of all buyers, sellers, and transporters at zero cost to them. To avoid adopting NAMX, members will need to place the handheld down and climb a mountain of cost, risk, and time to realize a fraction of the capabilities. Understanding the critical nature of the markets for each user, the overwhelming value of NAMX, free membership and systems, as well as retail integration, the case for member adoption of NAMX is clear. Of course, the subsidization strategy for a reoccurring revenue model is not new, similar strategies are also employed by firms such as Gillette, Microsoft, Direct TV, On Star, and almost all cellular providers to name just a few.

071 | Dealership Integration System
To enable the fastest adoption, NAMX will supply, install, and manage one server and router as well as a wireless environment for each dealer member. NAMX will also supply each dealer with specially designed NAMX handhels for everyday retail and wholesale activities. Each dealer will be supplied with a NAMX personal digital assistant (PDA) while each franchise dealer will also be supplied with a NAMX portable data terminal (PDT), which will be a rugged handheld with greater capabilities than the PDA. In addition to providing instant interactions with NAMX, the dealership integration will drastically improve the dealer’s ability to manage consumer trade-ins and vehicle inventory. The system will also enable efficient vehicle inspections for NAMX while streamlining the pick-ups and drop-offs for transporters. The hardware will be supplied to dealers but owned by NAMX. Per membership agreement, dealers will replace the hardware if lost, stolen, or destroyed.

072 | Freight Communications System
Understanding that wasted freight capacity is somewhere on the roads, it is critical that the NAMX systems enable constant communications between freight availability in the wholesale market and capacity, wherever it is. To that end, NAMX will supply vehicle transporters with NAMX handhels for daily freight planning, sourcing, navigation, loading, tracking, unloading, and invoicing activities. Employing an array of communication technologies such as cellular and satellite, the NAMX freight handheld will enable transporters with real time access to optimal freight availability at true market price within the NAMX freight market. The handheld will also streamline loading and unloading, digitally complete waybills, provide location based services, and maintain a total vehicle condition accountably between the time of NAMX inspection and vehicle delivery. Furthermore, NAMX will subsidize the necessary cellular and data cost. The hardware will be supplied to transporters but owned by NAMX. Per agreement, members will replace the hardware if lost, stolen, or destroyed.
073 1 Remarketer Communication System

Knowing that vehicle remarketers wholesale over 8 million vehicles, it is critical that NAMX enable easy market entry as well as maximum liquidity for those entities. However, there are thousands of them with various backend systems and integration policies. As such, it is impractical for NAMX to design and subsidize systems integration between them and NAMX at this stage, which presents a concern insofar as market integrity. To address that concern, remarketers will define all locations from which their vehicles could potentially be inspected within their NAMX administration system. Based on their administration system, the remarketer simply selects the location from a dropdown list or map and then enters the number of inspections needed to wholesale vehicles. Because all required information will be captured by the NAMX inspection, the NAMX interface will provide all remarketers with three lists of inventory for vehicles they have entered for wholesale in the market:

1. Vehicles not priced - remarketers will be able to individually or automatically price units
2. Vehicle in the market - remarketers will be able to easily manage all of their vehicles
3. Vehicles wholesaled - remarketers will be able to easily view any vehicle wholesaled

Once more, NAMX will also provide remarketers with an accurate cost and time of transporting any vehicle to an auction, marshalling, and vehicle reconditioning. As such, remarketers will be able to optimally price, transport, recondition, and wholesale their vehicles without systems integration. For those wanting or requiring integration, NAMX will provide an open systems interconnection.

074 1 Marketplace Member Administration

To enable the markets, NAMX must maintain trade integrity, franchise rules, market security, and accurate settlement while enabling each member to control all interactions. The first step is market administration. The NAMX administration system is designed specifically for each different type of member and partner based on the ways they will interact with NAMX. The administration system will capture, verify, and maintain all information relative to market interaction such as entity name, addresses, licenses, insurance, franchises, satellite locations, backend systems, market capacity, settlement, and membership administrators. Market capacity refers to interaction potential such as wholesale trade for the dealers or freight capacity for transporters. The settlement administration includes account numbers and terms for commercial finance and banking integration. Membership administrators are individuals who control all assignments and interactions in the administration.

075 1 Member Associate Administration

Associates for dealers will consist of new and used vehicle, finance, inventory, service, and parts managers as well as the sales-force, comptroller, accounts payable and receivable, and title clerk. Associates for transporters, remarketers, and partners will consist of similar positions depending on their interaction types. Regardless of position, each associate interacting with trade or settlement systems must enter NAMX with biometric authentication, i.e. fingerprint or voiceprint. As such, the associate administration will maintain information such as name, date of birth, and biometrics. If an associate is suspended or expelled for unscrupulous activity, it will be enforced industry-wide. The NAMX associate administration will enable a combination of efficient interaction and accountability.
The NAMX associate control will consist of various assignments, security levels, and permissions as set and adjusted by the member administrator, who can also create new member administrators such as the comptroller. Assignment enables the administrator to assign the required and optional trade responsibilities such as buying and inventory stocking, vehicle approval, arbitration, titles, and payments. The security levels will enable an administrator to control each NAMX system that an associate can access such as new and/or used vehicle trade and/or settlement and so on. The permissions will enable the administrators to establish associate interaction criteria.

Example: an administrator can limit the amount of new and/or used vehicles that their associates can buy and/or sell at any time based on numerous criteria such as cost versus price, price versus valuation, or impact on cash among many other possibilities.

In addition, the criteria can simply require approval of another associate such as the comptroller before allowing a market activity to breach the primary criteria. If any criteria are breached during a market interaction, the systems will stop the buyer or seller before a transaction is initiated. In sum, members and partners will be able to easily and absolutely control every associate interaction.

Marketplace Control Administration

NAMX interaction will enable administrators to control how their business will interact with NAMX, including systems integration, settlement preferences, and member limits. The systems integration requires that the NAMX installed server read the dealer’s system to enable seamless vehicle entry into the markets and ensure that all vehicles sold in another forum are automatically removed from the markets. In addition, dealers may add write capabilities to automatically update their systems with NAMX trade activity and thus, reduce data entry cost and ensure accuracy. NAMX will also enable open system interconnection (OSI) for all other members or partners. Because all debits and credits through the NAMX clearinghouse will be electronic, members will be able to choose electronic funds transfer (EFT) or electronic check processing (ECP) through their finance and banking institutions using settlement control. Member limits will enable any member to remove any possibility of trade with any other member or geographic area for any reason, i.e. a competitor or another dealer that is advertising cut-throat prices. In short, members will enjoy absolute control.

Market Transparency Administration

Enabling vehicle supply to demand efficiency requires the greatest amount of product, price, and time transparency in the market. To enable the accurate cost and time of parts and service for all used vehicles based on the NAMX inspections, members will select the following in administration:

1. **Labor rate** - their desired labor rate for servicing vehicles in their service departments
2. **Estimator** - standardized service estimating database such as Mitchell’s or Chilton’s
3. **Flat-factors** - price and time for detailing and other activities, i.e. paintless dent removal
4. **Time-count** - average time delay for vehicle service activities after a vehicle is delivered

Based on criteria, buyers will enjoy a guaranteed cost and time of service for all vehicles in NAMX.
079 | Marketplace Administration System

As mandated by the "invisible hand" principle, maximum market efficiency requires that all buyers and sellers act in their best interest. As discussed, vehicle wholesale consists of various buyers and sellers of vehicles as well as the products and services that enable trade. At any given time, those firms and individuals represent a vast array of different strategies, policies, practices, and behaviors. To accurately and continuously quantify and qualify those variables, an administration system enabling each buyer and seller of each vehicle, product, or service is required, otherwise, efficient and effective vehicle wholesale and thus, retail is impossible. Owing to those realities, the administration systems are the epicenter of NAMX and as such, they control the behavior of all systems. In addition to wholesale systems, administration also controls the NAMX retail systems such as vehicle sales, sales management, vehicle appraisal, consumer relations, as well as market leverage, whereby dealers redefine their desired profit margin in the administration system to use the millions of vehicles in the wholesale market as their own inventory in real time. Based on the amount of NAMX administration factors for every buyer, seller, vehicle, product, and service in the markets, one buyer's search fora vehicle in NAMX could require 100 million separate calculations.

080 | Marketplace Business Managers

To establish and manage all dealer memberships, NAMX will hire and train business managers at a ratio of 25 dealers to 1 business manager. At the very least, business managers will:

1. **Explain the core wholesale and retail value of NAMX as well as each feature and benefit**
2. **Explain the wholesale, retail, and information regulations as well as member elections**
3. **Manage the membership agreement and setup the administration system for all users**
4. **Perform an onsite survey for wireless environment and order wireless/integration system**
5. **Establish a date for the systems installation and oversee the systems hardware installation**
6. **Provide hardware, inventory, wholesale, retail, appraisal, auction, and settlement training**
7. **Monitor transactions compared to potential and follow up to promote maximum adoption**

NAMX business managers will provide everything dealers need to adopt and maximize value.

081 | Marketplace Manager Supports

To ensure the business managers have everything they need to ensure dealer adoption in the field, they will be constantly supported by membership, technology, trade, and settlement agents in the NAMX support center as well as technology partners nationwide. All membership processes will be electronic as well as connected to their associated support for real-time interaction, including the manager’s calendar for appointments and other activities. Based on the value of NAMX and zero cost of membership, hardware, and systems, NAMX expects the vast majority of dealers to accept membership immediately. All of the membership, administration, hardware, and training processes will be standardized in a step-by-step format. Training will include simulations of NAMX systems. An integrated technology partner will overnight, install, and setup all hardware within 3 days of an order. In total, the manager’s will require less than five days to establish each dealer membership.
082 I District Marketplace Directors

The business managers will report to district directors at a ratio of 11 managers to 1 director. The district directors will support the managers and stand responsible for overall dealer adoption in their defined areas. Moreover, the directors will establish and manage the district memberships for all vehicle transporters and partnerships with physical auctions, mobile reconditioning, and banking institutions. While those members and partners will require far less attention than dealers, those processes will also be electronic as well as connected to their associated support systems for real time interaction, including the director’s electronic calendars for appointments and other activities. All of the freight communications hardware will be distributed to transporters by auction partners while logistics agents within the support center will setup each transporter’s administration system. Because freight systems will be very easy for transporters to understand and use, training will be also managed by logistics agents. Each member, partner, and user’s adoption rate will be closely monitored by NAMX systems with precision compared to defined potential. Further, the balance or equilibrium between members (wholesale trade) and partners (products and services) will likewise be monitored. As a result, NAMX systems and agents will optimally adjust the calendar activities for each manager and director to ensure the highest marketplace efficiency as well as penetration.

083 I Regional Marketplace Management

The district directors will report to regional vice presidents (RVP) at a ratio of 20 directors to each RVP. The U.S. market (contiguous 48 states) will be divided into six fairly equal regions in terms of market potential. Because different states have different laws concerning vehicle registrations, all state borders will be maintained. Supported by NAMX systems, their staff, and the support center, each RVP will manage their directors and managers as well as large partnerships such as regional banks while the corporate offices will manage national partnerships and memberships. In total, the NAMX organization has been designed based the amount of members and partners as well as cautious estimations of the time needed to complete each activity required by member and partner adoption. To ensure execution, all activities will be monitored and supported by NAMX systems.

084 I Market Implementation Strategy

A business model with potential revenue of $3.4 billion will usually be addressing a customer base in the millions. In comparison, the NAMX customer base will be very small. Moreover, the NAMX database will define each potential member and partner while also assigning their NAMX manager and director as well as their member or partner identification number months before the launch of NAMX systems. Of the 6 regions (Southeast, Atlantic, Northeast, Midwest, Central, and Western), NAMX will initially be implemented in the southeast based on factors such as the infrastructure and weather. The size of the initial implementation of NAMX is considered to be the smallest feasible insofar as enabling enough wholesale transactions to create enough freight for transporter adopt and thus, enable the markets. To enhance critical mass and training, all inspections will be free for 3 months before launch. NAMX estimates over 40,000 vehicles available in NAMX on day one.
In the NAMX markets, new vehicle wholesale will be franchise specific, i.e. a new Chevrolet model can only be wholesaled to Chevrolet dealer. Furthermore, NAMX will guarantee the proper trade of special vehicles and used vehicles. Because special vehicles can only be sold by dealers that are certified by the carmaker to service them, they can only be wholesaled to and from those dealers in the NAMX markets. Special vehicles usually consist of super performance or vehicles consuming special fuels such as natural gas. The agreements between carmakers and franchise dealers also include restrictions concerning the wholesale trade of late model used vehicles. In NAMX, all of the wholesale restrictions will be perfectly enforced. To that end, NAMX will include an interface that enables carmakers to easily establish as well as adjust the sellers, models, mileage, and buyers of the new and used vehicles incorporated in their agreements. Once the criteria are set or adjusted by the carmaker, the changes will immediately take place in NAMX. If a franchise dealer secures a new franchise or is certified to sell a special vehicle, the support center will confirm the new status via the carmaker interface and immediately augment the dealer’s capabilities in the NAMX markets.

The most ineffective vehicle representation possible in the physical or electronic wholesale markets is realized when a representation fails to provide the buyers with an understanding of the vehicle, options, features, mileage, condition, history, and value. As a result of ineffective representation:

1. Less buyers will be willing to buy the vehicle due to ambiguity and thus, risk association
2. All buyers will reduce their buying confidence and thus, demand as well as price will drop
3. Buyers will knowingly or unknowingly assess risk to the purchase and thus, reduce price

While the lack of buyers and confidence will reduce potential price, the risks will be translated into cost, and thus, reduce vehicle value. If the representation also fails to provide buyers with the cost and time of the total purchase price as well as vehicle delivery and reconditioning, buyers will also calculate risks, thereby reducing vehicle value as well. In brief, ineffective vehicle representation thwarts all vehicle supply to demand efficiency, thereby reducing sales and profits. Conversely, a complete and guaranteed vehicle representation with cost and time transparency in an electronic wholesale market will maximize all vehicle values by enabling the lowest risk as well as the highest confidence and supply to demand efficiency. All NAMX representations will meet that standard.

Because new vehicles are new, they will not require a NAMX inspection. Furthermore, the ability of NAMX to represent new vehicles will require less effort while the risk of guaranteeing new vehicle representations will be lower, hence the very low new vehicle buyer fee. The ability to provide total and guaranteed vehicle representations as well as cost, time, and valuation transparency does not assert perfection but that NAMX will efficiently and constantly capture and disseminate the right information. In sum, the correlation coefficient of all data will be extremely high; thereby minimizing errors and thus, risk to such an extent that NAMX can profitability guarantee every representation.
To provide a complete, detailed, clear, and guaranteed representation as well as transparency of used vehicle reconditioning cost and time, NAMX will perform a standardized and comprehensive inspection on all used vehicles before entry into NAMX. To perform the inspections, NAMX will hire and train certified inspectors that will be tested by ASE. NAMX estimates that the inspectors will average 7 inspections per business day, which translates into 129 certified inspectors per 1 percent market penetration: (12 million transactions x 2 inspections / 265 days / 7 inspections / 100 points).

While the 7 vehicle average considers the inefficiency of inspecting a few vehicles at rural dealers, the average does not fully incorporate the efficiencies that will be realized by inspecting vehicles at large lots, auction partners, reconditioning centers, or inspection centers built by NAMX where they are feasible. As such, the 7 unit average is considered to be the worst case. If higher efficiencies are realized, the NAMX certified inspectors could average 10 to 12 inspections per business day.

Automobile Inspector Calendaring
To ensure that certified inspectors are able to efficiently and effectively inspect all used vehicles for market entry, they will be constantly supported by inspection and technology agents in the NAMX support center. All inspection processes will be electronic and standardized as well as connected to their associated support for real time interaction. Immediately after a seller enters a request for one or many vehicle inspection(s), the NAMX inspection calendaring system will automatically:

1. Define the time of day the seller allows inspections and all inspectors in the inspection area
2. Calculate the amount of inspection time needed for the amount of inspections requested
3. Define locations of scheduled inspections and available time in each inspector's calendar
4. Define distance and time between each scheduled location and the requested location
5. Calculate time to perform requested inspection(s) and drive to the next scheduled location
6. Define the date and time that the first available inspector(s) can perform the inspection(s)
7. Adjust inspectors' calendar(s) accordingly and respond to request in about 2 or 3 seconds

If a date and time exceeds 48 hours later, the request is automatically sent to an inspection agent. The inspection agent will review scheduled inspections for the appropriate inspectors as well as the requested inspection(s) and location. After review, the agent will optimize the response time.

Automobile Inspection Templates
With the exception of requesting the keys, vehicle location, and/or service records, the inspectors will not interact with the sellers. Once each vehicle is located, the inspector will scan or enter the vehicle identification number (VIN) in the inspection laptop, which will instantly download available vehicle history records. Thereafter, the inspector will take 8 exterior and 5 interior pictures of the vehicle and then follow a set of digital templates depicting the exterior, interior, engine, drive-train, transmission, and undercarriage. The templates will replicate the look of each specific model and will efficiently guide the inspector through the inspection step-by-step while also providing sellers and buyers with a fast yet complete, precise, and accurate understanding of the vehicle's condition.
091 Automobile Interior Inspection

Once the inspector has reviewed the vehicle's history and taken exterior pictures, the interior template will automatically appear. The inspector will review and/or test the condition of all interior components, including electronic equipment. If a concern is found, the inspector will simply click on the appropriate indicator (icon) and add it to the interior template.

Example: a cigarette burn is found in the passenger’s seat; the inspector will click on the cigarette burn icon and drag it to the passenger’s seat in the interior template. Then, the inspection software will request the width and depth of the burn. After the size of the burn has been selected, the system will automatically move to picture mode. After the inspector has taken a picture of the burn, the system will instantly recommend the odor icon for the inspector to consider. If selected, the inspector will also select the severity of the odor. In total, the burn, picture, and odor will be completed in about ten seconds. Further, the inspector can add voice recordings to the indicators. In the blue outlined interior template, the icons will be depicted in yellow or red to enable easily review the concern or pictures.

092 Automobile Driving Inspection

Once the inspector has completed the interior template, the inspection software will automatically move to test drive mode. Preceding the test drive, the inspector will attach an onboard diagnostics system between the inspection laptop and the vehicle’s OBDII computer. In addition, the inspector will also connect the laptop to an electronic brake tester. While diagnostics are collecting data, the inspector will use voice recordings and the digital indicators to express the drivability factors such as turning, shifting, suspension, noise, and vibration. The inspector will also use icons to express the working order of all electrical, power assist, climate, audio, video, navigation, and telematics.

093 Automobile Computer Inspection

The onboard diagnostics system will capture critical data by monitoring onboard computers during a test drive. The data will initially include generic and other powertrain codes relating to concerns from a loose gas cap to engine failure but will grow to include all codes over time. After the capture of diagnostic trouble codes (DTC), the system will compare them with a NAMX database and:

1. Provide each specific fault description based on the diagnostic trouble codes (DTC)
2. Define potential causes of the fault description based on database collaboration
3. Efficiently guide the inspector to determine the probable or actual cause of a DTC
4. Calculate cost as well as time of correcting current problems, worst case will be utilized

The inspector will also perform a braking test that will require less than 200 feet of distance for accelerating to 20 MPH and quickly stopping. The braking test will discern brake efficiency with a double axis accelerometer that will precisely measure peak acceleration and deceleration between front and rear as well as right and left braking. In real time, the system will read the gravitational force data and calculate braking efficiency for a pass/ fail result owing to predetermined data for each model. While all tests will be initially effective, they will also increase effectiveness over time.
Once the test drive is completed, the vehicle fluids will be sufficiently heated and mixed, as such, the NAMX inspection software will automatically move to engine and fluid analysis mode. As such, the inspector will draw a two ounce sample of oil from the dipstick tube to begin the fluid analysis. Based on the onboard diagnostics results and/or specific model and/or condition, the inspector may also draw a sample of transmission fluid for analysis. The fluid analysis will precisely measure the full array of wear metals and foreign fluids that are present in the engine and/or transmission fluids to accurately determine problems without disassembly. As a result, fluid analysis will accurately detect coolant leaks, blown head gaskets, leaking manifold gaskets, cracked blocks, oil sludge and much more. Once the analysis is complete, the results will be wirelessly transferred to the laptop. The inspection software will compare the results with a NAMX database and will:

1. Define amount of wear (minimal, normal, or excessive) relative to the specific model
2. Define all existing concerns as well as the severity of all existing mechanical concerns
3. Efficiently guide the inspector to determine the cause of existing mechanical concerns
4. Calculate the cost as well as time of correcting any problems based on estimator DB

While the analysis calculates results, the inspector will inspect all fluid levels, belts, hoses, clamps, walls, seams, welds, VIN tags, crumple zones and the like to ensure the best representation.

095 Automobile Exterior Inspection
Subsequent to the completion of the engine and fluid modes, the inspection software will instantly move to the exterior mode. In the exterior mode, the software will guide the inspector through the templates for the panels, doors, door jamb, pillars, bumpers, windows, wheels, tires, lights, roof, and trunk. Similar to the interior templates, the inspector will add icons to each exterior template for concerns such as scrapes, dings, dents, scuffs, and tears among many others. Templates for the windows and trunk will include icons such as cracks and stains. Using a small yet high quality extension camera with lights, the inspector will measure most brake pads. In rare circumstances, the inspector will need to remove the wheel to inspect the pads. Using a laser measuring device, the inspector will also measure the precise tire tread depths. For all areas of the vehicle with paint, the inspection software will prompt the inspector to scan the paint in three defined areas with the coating thickness gauge. The electronic paint gauge will instantly add the precise paint depth to each template. Since a body shop is unlikely to match factory paint depth from panel to panel, the inspection will discern previous paint work. Example: if the paint depth on one panel is 9 mm while about 5 mm on the other panels, that panel has been repainted and the vehicle may have wrecked.

096 Automobile Underside Inspection
After the exterior mode is complete, the inspection system will move to underside mode, which will guide the inspection underneath the vehicle. Using a cart that will extend a small yet high quality camera and lights up to 4 feet, the inspector will control the pan, tilt, zoom, and picture capabilities with the laptop. Similar to the other templates, the inspector will add icons as the camera inspects factors such as frame rails, absorbers, shocks, gas tank, boots, gear box, axles, and much more.
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097 | Automobile Inspection Completion
Once the underside mode is complete, the inspector will take high quality pictures of any books or records inside the vehicle or at the facility. If the vehicle being inspected is owned by a franchise dealer, the inspection system will automatically scan the dealer’s management system to locate all service work performed on the vehicle. If the inspector agrees the work has been completed, the information is included with the inspection for market consideration. Including drive time, gathering keys, locating vehicles, and general ineffectiveness; NAMX estimates that the average inspection will require 75 minutes. All inspection equipment will be totally rugged and designed to withstand the punishment of inspections in almost any weather. From the inspection request to completion, the NAMX inspection will enable the world’s most efficient and effective mobile vehicle inspection.

098 | Automobile Representation Review
The most efficient and effective vehicle inspection is practically worthless without a representation that provides sellers and buyers with total confidence within the markets. To that end, the NAMX used vehicle representation will provide stunning visual clarity and detail combined with guaranteed accuracy. In a matter of seconds, members will be able to easily understand everything they need to know about every used vehicle they review in NAMX. The representations will provide:

1. A 360 degree view of each used vehicle utilizing actual pictures and digital templates
2. A detailed list of all options with descriptions of their specific features and benefits
3. A group of digital templates depicting each vehicle and component in a 360 degree view
4. Highly intuitive digital icons depicting all concerns in a color format, i.e. red, yellow, green
5. High quality pictures of the vehicle and all specific concerns throughout the inspection
6. All known vehicle history, i.e. accident, flood, insurance claims, registration, title, etc.
7. An itemized list of all cost and time to recondition each vehicle to end-consumer readiness
8. Voice recordings enabling each member to hear the inspector’s review of vehicle condition
9. Accurate vehicle valuation, including the precise valuation of all options as well as mileage

Because different members will have different policies and practices, the cost and time of vehicle reconditioning will rely on the factors established in their separate administration systems. When a member reviews a used vehicle, the inspection results will be compared to the database, labor rate, time delay, flat rates, and flat times selected by the member to calculate the accurate cost and time of reconditioning for the specific vehicle based on the specific member’s preferences.

099 | Automobile Representation Approval
Due to comprehensive inspections as well as calculations based on specific member preferences, the vast majority of representations will be approved upon delivery. Nonetheless, NAMX expects a degree of adjustments (3 percent of trade $500 each). To ensure the lowest rate of adjustments:

1. Diagnostic and repair databases will improve accuracy for each specific model over time
2. If a buyer’s adjustments are excessive, that buyer’s future factors will increase accordingly
3. If a buyer attempts to mislead NAMX, they will be suspended or expelled from the markets
100 I Automobile Logistics Opportunity
In addition to inspection and reconditioning, vehicle representation must provide all buyers with the cost and time vehicle freight as well as integrated delivery execution to truly enable vehicle supply to demand efficiency. To enable such transparency and capabilities, it is critical to understand the nuances that cause current inefficiencies. Disconnection between vehicle transporters and vehicle wholesale trade is the primary reason that about half of all freight capacity is wasted. Transporters typically rely on brokers to locate freight on their behalf for a fee of about $25 per vehicle. Since wholesale trade is disconnected from freight, the brokers must rely on relativity few relationships with transporters, dealers, and remarketers via phone, pager, and facsimile. Therefore, the brokers are very limited in providing freight capacity to availability and even less so vice versa. While some transporters setup at auctions and others enjoy some degree of new vehicle distribution insight, the opaque realities of new and used vehicle wholesale truly impairs the ability of the transporters to deploy resources that can efficiently respond to availability, hence the wasted freight capacity and thus, barriers to wholesale trade. With the NAMX administration and communication systems, the NAMX markets will leverage freight capacity to radically enhance all efficiency and effectiveness.

101 I Transportation Location Difficulties
To truly enable vehicle freight, wholesale, and retail trade, NAMX will remove the current realities of good and bad freight by making all freight good freight for every transporter every time. Currently, a significant amount of vehicle supply is not available to demand due to location difficulty. When sellers or buyers are located one mile from a primary interstate in a metro market, their location difficulties are low and freight capacity is usually available. When the sellers or buyers are located in rural areas far from an interstate, their location difficulties are high and freight availability is low. While vehicle supply and demand is about equal in metro versus rural markets, the vast majority of dealers are located in rural markets. Because the rural dealers are less likely to meet consumer demand due to less inventory availability while the metro dealers need access to more inventory due to far greater opportunities, the ability to efficiently connect rural and metro dealers is critical.

102 I Transportation Seasonal Difficulties
When retired persons (snowbirds) from the northeast migrate to the southeast for the winter, they consume a large portion of freight capacity southward while much of the northern bearing capacity goes wasted. Of course, the same is true vice versa when the snowbirds return for the summer. During those times, a normal freight price will fail and thus, compromise wholesale trade. Knowing that those price difficulties will not be solved by a simple price per mile mechanism and that all freight will move at some price, the price mechanism must be efficient. A freight price too low will not move freight, thereby reducing supply. A price too high will increase trade cost, thus reducing demand. Therefore, NAMX will maintain a true market price that will move all freight regardless of seasonal or location difficulties, thereby maximizing vehicle supply as well as demand in NAMX.
It may seem logical that freight availability in NAMX could be posted for bidding online or via the NAMX freight communications system. However, such a price mechanism would remove pre-trade transparency in the new and used vehicle markets because the cost and time of freight would be unknown to the buyers before and during trade. Further, such a format would reduce the speed of trade execution while increasing risk and cost for the buyers and transporters due to the additional process time of negotiating a vast amount of freight prices. To actually enable vehicle wholesale and freight, NAMX will provide all buyers in the wholesale market with the accurate cost and time of freight before bidding while also providing all transporters with a fair market price that will move all freight without exception. To that end, the NAMX freight price mechanism will accurately predict the price and time for all freight possibilities between all NAMX buyers and sellers before the freight actually exists. Moreover, NAMX will actually guarantee the price as well as delivery of all freight.

The NAMX freight market will calculate factors of supply (capacity) and demand (availability) along with factors such as government regulation to reverse engineer a guaranteed freight price while providing an accurate time of delivery for all search results in the wholesale market. Moreover, the NAMX reverse engineered freight price will effectively and efficiently move all freight by providing transporters with an attractive price while maintaining an optimal price for the buyers. To that end, NAMX will calculate the time between freight availability and transporter acceptance to maintain a difficulty index for all locations in NAMX, including auctions as intermediate distribution points. As the acceptance time for any location increases or decreases, the difficulty index will also increase or decrease. To discern a base price per mile, NAMX will calculate factors such as service types, fuel price by area, and the size, weight, and quantity of freight. The resulting base price per mile will be multiplied by the average (seller and buyer) difficulty index to establish the actual price per mile. The actual price per mile will be multiplied by the optimal route distance to reverse engineer the most attractive and optimal freight price for every search result in the NAMX wholesale market.

To establish an accurate freight delivery time for all search results in the wholesale market, NAMX will constantly measure actual delivery time for each distance delivery break, e.g. 25, 50, 100, 250, 500, 1,000, and 3,000 miles. Rather than set arbitrary distance breaks, breaks will set and reset by constantly calculating the greater-than-normal time variances per mile. For each break, NAMX will calculate the intermediate freight acceptance time and time between acceptance and freight pick-up to establish the pick-up time. The actual mileage will be multiplied by distance break time per mile plus the pick-up time to set the base delivery time. The base delivery time will be adjusted by freight size and quantity to calculate the specific freight time. NAMX will likewise calculate the government mandated hours for each route, which will override the specific freight time if greater.
Once a transaction is completed in the wholesale market, the freight specifications (year, make, model, length, weight, origin, pick-up time, distance, destination, arrival time, and freight price) will be instantly available in the NAMX freight market. Basically emulating the Federal Express model, NAMX will also calculate an additional route or routes from the origin to destination using auctions as distribution points. The additional routing will employ the freight price and time calculations plus the additional time and cost of vehicle marshalling at the auto auction while maintaining the initial freight price and time. Therein, the price and time per mile will retract the result could be more efficient and effective. It could, for example, be faster and less expensive to move a vehicle with a southern destination north from the origin to a distribution point and then to the final destination if the surplus capacity exists moving north with capacity moving south from the distribution point. Of course, the distribution point could be directly between the origin and destination. The rerouting example is especially true when factoring the various freight services, i.e. a roll-back could accept the freight from the origin to the distribution point while a carrier moving through the distribution point could accept the freight to the final destination. The NAMX freight market will efficiently and effectively deliver freight by leveraging real time capacity with a true market price while enabling transporters by leveraging the various technological, communications, and physical infrastructures.

**107 Freight Sourcing Capabilities**

From practically anywhere at anytime, a transporter can easily search for and locate all available freight in NAMX based on all relevant criteria. Or, the transporter can simply enter a destination, multiple destinations, and/or their final destination in their NAMX handheld. For each destination, NAMX will request current or expected capacity for each as well as the required date of arrivals. In response, NAMX will provide the transporter with a list of optimal freight for each destination. As the transporter accepts freight on the list, NAMX will adjust the list of optimal freight to reflect the lower capacity as well as new arrivals and delivery times. If the transporter simply enters the final destination and required arrival date, NAMX will provide the transporter with the optimal freight and destinations between the current and final time as well as place. Once the transporter enters any amount of destinations and capacity, NAMX will continuously track the transporter and offer optimal freight while the transporter is en route, thereby continuously maximizing the leverage of capacity.

**108 Freight Distribution Example**

A transporter with a 10 unit capacity is empty in San Diego on Monday with a final destination and arrival date in Atlanta by Saturday. In response, NAMX offers 6 units from San Diego to Phoenix and 3 units to Dallas. From Phoenix, NAMX offers 2 units to Ft. Worth and 4 units to Atlanta. From Dallas, NAMX offers 3 more units to Atlanta. The transporter accepts them all. While en route to Phoenix, more transactions are completed and the transporter is offered 1 more unit from Phoenix to Dallas and 3 more units from Dallas to Atlanta, which are accepted and efficiency is realized.
The primary factor enabling NAMX to continuously reverse engineer an accurate freight price is the location index, which is maintained in the administration system of each seller, buyer, and auction. As the freight acceptance time (FAT: mean time of transporters accepting freight from a location) for any seller, buyer, or auction increases or decreases, their location index will likewise increase or decrease. As a result, the freight prices to and from their location will increase or decrease, which will ensure that all of that freight will be optimally attractive to transporters, thus, ensuring that all of that freight will be optimally transported to higher demand, thereby enabling efficient wholesale. To enhance that freight efficiency, NAMX will constantly monitor on-time-delivery (OTD) for the entire market and each region as well. If the OTD rate falls below or rises above a predefined variance (example: .025 percent) for a predefined percentage (example: 98 percent) of targeted OTD, the NAMX systems will fractionally decrease or increase each location index. As a result, the FAT and OTD will optimize. Price alone will not optimize OTD when circumstances such as weather and/or traffic impede delivery. With similar methodology, NAMX will adjust the FAT and base delivery time (BDT) for specific areas and/or regions if such route circumstances are present and/or foreseeable.

**110 I Optimal Transportation Efficiency**

Considering the size of a vehicle, it may seem unlikely that NAMX can surpass FedEx logistical efficiency. However, NAMX will enable far greater efficiency due to factors such as the following:

1. **NAMX will constantly calculate the exact amount and location of capacity and availability as well as the optimal route and/or intermediate points between freight supply and demand**

2. **NAMX will interconnect freight capacity and availability in real time, thus, removing the time delay between freight supply and demand, thus, maximizing capacity response efficiency**

3. **NAMX will leverage the optimal (type and location and thus, price and time) freight capacity available rather than the extreme inefficiency of prescheduled capacity assignments**

4. **NAMX will connect a vast array of capacity in real time rather than the capacity limitations of one firm, thereby enabling the greatest capacity and competition for freight availability**

5. **NAMX will enable transporters to act in their own best interests (invisible hand) to establish a real time market price for freight capacity and thus, maximize allocative efficiency**

In short, NAMX will minimize capacity imbalance with an economic driven system enabled by real time connectivity to produce vastly greater freight efficiency than any other system in the world.

**111 I Vehicle Valuation Methodologies**

In addition to representation and freight, accurate valuations are critical to vehicle wholesale trade. Current valuation systems are simply inaccurate due to poor methodologies. In defense of current systems, known as guides, accurate and real time vehicle value is challenging and unlikely in the current structure. For example, the value of one mile on one model is different than the value of a mile on another model while the value of one mile at one point on the same model will be different than at another point. Moreover, vehicle values will change with time. Thus, real time systems are the only valid means of calculating accurate values and thus, a real time market is the best source.
112 Element Valuation Processes

To provide real time vehicle valuations, NAMX will define the values of every vehicle element such as options, colors, and trims for any vehicle in question by isolating and comparing the transaction prices. For the same year, make, and model as the vehicle in question, the isolation process will:

1. Define the last transaction and price for the most basic model available
2. Define the last transaction and price for every trim available
3. Define the last transaction and price for each option available
4. Define the last transaction and price for each interior color available
5. Define the last transaction and price for each exterior color available
6. Define the last transaction and price for every second exterior color available
7. Juxtapose each defined transaction price with all other defined prices
8. Define the initial valuations of each color, option, and trim defined
9. Define the rate of depreciation between each transaction and the newest
10. Adjust initial values based on the depreciation rate from their date to the newest
11. Establish the secondary valuation for year, make, model, options, colors, and trim

113 Intangible Valuation Processes

Based on the NAMX inspection, buyers will logically deduct reconditioning costs when establishing prices in NAMX. To discern retail readiness of the wholesale valuations, NAMX processes will add reconditioning costs back to the prices for every transaction defined above. To calculate additional loss of valuation resulting from reconditioning cost, the NAMX processes will likewise measure the difference in prices compared to each incremental increase of reconditioning cost and time. For example: $1.00 of reconditioning cost on any specific model may reduce prices by $1.28. To the extent that reconditioning costs reduces prices further than the actual costs, NAMX will add those amounts back to the transactions defined above as well. To measure the impact of any vehicle's history on price, NAMX will isolate and compare the prices for the various types of registration, title, accident, and theft information to calculate the amount of price gain or loss for specific models.

114 Mileage Valuation Processes

To measure the precise depreciation per mile for each specific model, NAMX processes will create vehicle mileage breaks for each base model combination by calculating the primary (greater-than-normal decline) price reductions to set the start and end of vehicle mileage breaks. Within each of the mileage breaks, NAMX will calculate the differences between the prior and break transaction prices as well as mileages and then divide the difference in price by the difference in mileage to calculate the per mile value within the break. To calculate the total mileage value, NAMX finds the average mileage (A) and price (B) for the overall model in question and multiplies the difference in miles (X) for the specific vehicle by the per mile value (Y) of each vehicle mileage break between (A) and (X) to calculate the precise gain or loss (Z) of value from (B) for any specific vehicle. As a result, NAMX will normalize each of the secondary and intangible transaction prices defined above.
115 | Element Valuation Combination

The isolation processes will discern the valuation of specific vehicle elements in real time, thereby enabling physical (vehicles that do exist) and hypothetical (vehicles that do not exist) new as well as used vehicle valuations. Rather than average the transaction prices or utilize any methodology that fails to calculate the factors constituting the prices such as condition, options, colors, mileage, and history, NAMX will define, isolate, calculate, and combine those factors and their correlating prices to discern real time and accurate valuations. For specific new and used vehicles, NAMX will calculate the base model combination price and then add or deduct the price of each option and color. For used vehicles specifically, NAMX will add or deduct the value of vehicle history and each mile individually. Before combining those values to calculate a physical or hypothetical valuation, NAMX will adjust each price to the most recent transaction date by calculating a depreciation rate. For vehicle options that lack transaction prices, NAMX will apply the depreciation rate to the initial price of the option. In short, NAMX will calculate precise and real time valuations for any vehicle.

116 | Interactive Market Indices

Real time and accurate vehicle values will dramatically enhance the ability of sellers and buyers to interact in the NAMX and auction markets. To enhance the interaction further, NAMX will provide members with numerous market indices based on those real time vehicle valuations. To that end, NAMX will calculate the indices such as the NAMA (New Automobile Market Average) and PAMA (Pre-owned Automobile Market Average) for used. The NAMA and PAMA will employ a weighted average of the thirty best retailing new and used vehicles at any given time. Each model weight will be multiplied by its correlating valuation to maintain each index. With similar methodology, the carmakers and vehicle segments will also have a new and used vehicle index, which will be based on a weighted average of all carmaker vehicles and the best selling ten vehicles for each segment.

117 | Relative Market Interactions

To assist members with understanding risks and opportunities in the markets, NAMX will calculate three factors for each model, segment, and carmaker. The relative retail rating (RRR) will provide an instant rating of retail opportunity by dividing the average retail profit margin for each model by the average cost. That result will be divided by retail days-supply to calculate the index. Similarly, NAMX will calculate a Relative Market Index (RMI) of risk based on specific liquidity and a Relative Value Index (RVI) based on retail and wholesale factors combined. All three of the indices will be normalized to a factor of one and tracked over time. Knowing that different members will interact differently, all members will be able to easily adjust the weight of primary factors as they desire on a horizontal sliding scale, i.e. a member can adjust the RRR between the profit margins and the cost of time, the RMI between supply and demand, and the RVI between retail and wholesale. The valuations and indices will enhance inventory insights and market trade. NAMX valuations are for members only and cannot be published in any form. Violations will result in member suspension.
**By selecting a model in the primary layout or by simply changing the vehicle, a menu will display highly interactive and detailed features.**

The model will analyze the model's variations with the information given, and may change the default to one that best complements the vehicle in real-time.

Furthermore, the model can analyze the options and customize the vehicle for the model's variations with the information given, and may change the default to one that best complements the vehicle in real-time.

---

### MARKETPLACE

- **DEALER ADMINISTRATOR, John M. Kenney**
- **LOGOUT**

#### SEARCH

<table>
<thead>
<tr>
<th>EXTERIOR OR COLOR</th>
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<th>TV DISPLAY</th>
<th>RANGE</th>
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<tbody>
<tr>
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<td>T 537</td>
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#### PRICE

<table>
<thead>
<tr>
<th>PRICE</th>
<th>€ 8972</th>
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<tr>
<th>SUPPLY</th>
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<tr>
<th>VOLUNTARY</th>
<th>3 840</th>
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#### CHANGE

<table>
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<th>8.08%</th>
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The wholesale price of an entire brand, a segment, or a specific new or used model is normalized to a factor of 1 versus the expected category such as nationwide. This analysis details where the measured wholesale price is over or less (highlighted) than the relative value and the chosen variable. More...

Regardless of analysis, the analyst can simply select any state within the national map while also selecting any city within the state map.

Based on the variables selected by the analyst, a city that is below the comparison will be red, if it is above, it will be green, otherwise white.

Furthermore, a number can also drill down to a street level by selecting any city, which will also show the location of all dealerships & auctions.

The relation price of an entire brand, a segment, or a specific new or used model is normalized to a factor of 1 versus the expected category such as nationwide. This analysis depicts where the measured wholesale price is more or less (highlighted) than the relative value and the chosen variable. More...

* NAMX
118 I Vehicle Inventory Intelligence

For the most part, dealers rely on intuition for inventory, retail, and wholesale decision making. To clearly improve the dealer's ability to minimize costs and maximize sales, NAMX will provide them with an inventory intelligence system. A few firms currently purport to provide them with inventory intelligence systems. While some of those systems consist of misinformation and others provide part of the information, all of those systems lack most of the critical information concerning vehicle inventory behavior. Thus, all of those systems are far from trustworthy and actionable in everyday operations. The NAMX inventory intelligence system will integrate and weigh all data concerning the limitations and possibilities of vehicle inventory for each specific operation to calculate the most efficient and effective inventory for them at any given time. Moreover, NAMX will integrate those calculations directly in the NAMX inventory interface, thereby enabling reliable retail and wholesale decision making and instant action taking capabilities that will reduce cost and increase unit sales.

119 I Inventory Intelligence Factoring

To provide dealers with continuous inventory intelligence, NAMX will connect the following factors:

1. **Inventory Guidelines**: enables dealers to easily establish guidelines such as inventory size and turn as well as specific limitations such as models, cost, value, condition, age, etc.

2. **Sales Forecast**: enables dealers to easily set annual and/or monthly new as well as used vehicle sales forecasts by segment, new and/or used model, and/or sales representative

3. **Recent Sales**: a continuous calculation of the best-selling new and used vehicles for each dealer over a recent period of time, i.e. the most recent 90 day period of retail unit sales

4. **Forward Sales**: a continuous calculation of the best-selling new and used vehicles for the next sales period based on the dealer's sales for the same period prior, i.e. 30 day period

5. **Area Registrations**: calculation of the best-selling models in the dealer's area of influence

6. **Trend Analysis**: specific model trending of vehicle sales in the area of dominate influence

7. **Market Valuation**: real time valuation of all vehicles in the inventory and the markets

8. **Trading Costs**: the cost of wholesale buying and selling that impacts inventory corrections

9. **Investment Return**: average retail price versus the actual or expected cost of vehicle sale

120 I Vehicle Registration Integration

The NAMX valuation and dealer communication integration will garner all of the information for the inventory intelligence except for: Area Registrations. As such, NAMX data integration will connect dealers and data providers in real time. Based on the dealer's previous vehicle sales, the NAMX systems will provide them with a map of their area of dominate influence by zip code. Based on the map, NAMX will show the cost of sales data. Moreover, the dealer can easily adjust the cost of data by simply adjusting the size of their area up or down, i.e. 90 up to 95 percent. To acquire sales data, the dealer can easily setup periodic renewal or push a button to buy the data from the provider. The current cost of data sales and distribution is very high for providers while the value of their data is low because dealers lack of time and/or ability to properly apply it. NAMX will increase data value by transforming it from merely interesting to a powerful tool providing answers rather than more questions. Furthermore, NAMX will reduce the sales and distribution costs to near zero.
NAMX inventory intelligence will rate all new and used vehicles between ten points positive and ten points negative based on the aforementioned factors. The weight of each factor will be initially set to a default but dealers may adjust the weight on a sliding scale to more closely reflect their specific operation. As a result of the ratings, NAMX inventory intelligence will calculate the dealer's optimal inventories, which will change as area sales, dealer sales, wholesale values, inventory guidelines, sales forecast, or expected returns change. In real time, optimal inventory will be juxtaposed to the actual inventory and provide the dealer with buy, sell, and hold guidance based on each dealer's specific settings. For an example: a dealer may set the ratings at 6.2 negative equals sell while 7.1 positive equals buy, thus, all ratings between 6.2 negative and 7.1 positive equal hold. To improve market interaction, all buy and sell interfaces in NAMX will reflect the dealer's rating for the specific vehicle being sold or bought. Inventory ratings will also assist dealers with retail sales. Example: a unit with a high rating such as 9.0 positive should enable more profit than a rating of 8.0 positive.

**122 Automobile Inventory Interface**

To enable easy market interaction, NAMX will provide all dealers with an interface of their new and used vehicle inventory in real time. To that end, NAMX will track all wholesale and retail activity for each dealer to maintain accuracy. The inventory interface will enable dealers to sort their inventory by franchise for multi-franchise dealers and by stock or identification number, year, make, model, trim, package, color, aging, cost, and valuation. The inventory interface will show the following:

1. The difference between dealer cost and real time market value for each unit and inventory
2. The amount of daily retail activity (including salesperson and customer data) for each unit
3. Outstanding reconditioning needs by dollars and time for each unit (inspected required)
4. The inventory intelligence rating as well as buy, sell, or hold inventory intelligence guidance
5. If any of the vehicles are already in NAMX, including all previous wholesale bidding activity
6. If any of the vehicles are physically at an auto auction and all previous auction bid activity
7. The current vehicle status, i.e. pending transaction, service department, retail, or wholesale

The interface will total each column to provide dealers with an instant understanding of their vehicle inventories. Moreover, multi-franchise dealers will be able to review inventory by franchise while dealer groups will be able to review inventories in one store or compare and rank between many.

**123 Wholesale Marketplace Entrance**

While the inventory interface will provide dealers and remarketers with tremendous transparency of their inventories, it will also enable point and click entry as well as pricing of vehicles in the NAMX markets. The seller will likewise be able to simply scan the VIN with the NAMX handheld to enter and price any vehicle. For new vehicles, a seller will be able to instantly price the vehicle and it will be available in the market immediately. For used vehicles, sellers will quickly receive the date and approximate time of the NAMX inspection, usually within 48 hours before entering a vehicle. After the completion of inspection, any seller can easily consider vehicle condition and value for pricing.
Wholesale Pricing Mechanism

After selection or inspection, each vehicle will be priced. Market pricing will consist of three factors:

1. **Asking price**: is the buy now price and required for market entry, (visible to the market)
2. **Floor price**: is the minimum price for seller review, also required, (invisible to the market)
3. **Accept price**: is an optional price between asking and floor prices, (invisible to the market)

The asking price is an amount that the seller is willing to accept for the vehicle, i.e. buy now price. If a buyer bids the asking price, the seller must wholesale the vehicle. The floor price will be invisible to all of the buyers and is the minimum price that the seller will consider for review and negotiation. The optional auto-accept price is a dollar amount anywhere between the asking and floor price, which will also be invisible to all buyers. If the seller enters an auto-accept price, any bid received at or above that price will be automatically accepted and sold. Owing to the real time valuations and other market factors, the pricing interface will show the likelihood (%) of a bid meeting each of the three price points, thereby enabling the seller to adjust price if necessary. In sum, the NAMX vehicle entrance and pricing interfaces will enable an extremely straightforward and easy process for sellers to wholesale their vehicles in their own best interest (invisible hand).

**125 Automated Automobile Entrance**

To further enhance the ease of wholesale, NAMX will also provide automated entrance and pricing systems. Automated entrance will enable dealers to enter new vehicles automatically by selecting any model and criteria such as inventory aging, vehicle valuation, and/or inventory intelligence.

*Example*: a Chevrolet dealer selects the Malibu model and age criteria for entrance and pricing as follows: when each Malibu reaches ten days in inventory, it will automatically enter the wholesale market with an initial asking price of $500 over net cost and an initial floor price of $100 below cost. Further, the dealer directs the asking and floor price to automatically reduce by $50 for each additional ten days in inventory with a maximum asking price reduction of $300 below cost when reaching 160 days in-stock.

The automated entrance and pricing will also enable used vehicles as well, whereby sellers can easily use criteria such as age, cost, valuation, intelligence, and other factors to automate used vehicle inventory. In brief, NAMX automation will enable sellers with precise control, minimal effort, and maximum benefit - thereby maximizing new and used vehicle supply in the NAMX markets.

**126 Intelligent Automobile Entrance**

To maximize inventory efficiency, NAMX will enable dealers to combine automated and inventory intelligence systems. As a result, dealers can automatically enter and price new as well as used vehicles based on intelligence ratings. Moreover, dealers will be able to modify automated entry with secondary and tertiary criteria such as year, make, model, segment, cost, and age.

*Example*: dealers can select a specific segment such as midsize car to automatically enter the NAMX cost if their ratings exceed 2.0 negative. Dealers will be able to automate the wholesale price by the rating as well, i.e. increase or decrease by $75 for every half point change up or down.
127 | Automated Marketplace Pricing

Because inventory intelligence will enable a constant reflection of the best inventory for any specific dealer while providing complete control of each factor, it will be unnecessary for dealers to use the secondary or tertiary criteria for entrance. Nonetheless, the dealers and remarketers may want to automate wholesale pricing with additional controls. To that end, NAMX will enable the sellers to automatically price and adjust their asking and floor prices based on real time vehicle valuation by simply setting the price of a specific vehicle or an entire group of vehicles within a percent or dollar amount of real time valuation over any period of time. Once more, the sellers will be able to place a stop loss on any automated price versus cost regardless of valuation. Sellers may also automate the floor price and auto-accept price as a percentage or dollar amount lower than the asking price and as such, narrow their price factors down to only one for a group or all vehicles they enter in the markets. Example: Based on the asking price, sellers will be able to set a specific floor price or all floor prices $800 below a specific asking price or all asking prices. With NAMX automated pricing, sellers will enjoy precise control of all factors and thus, be able to easily automate the pricing of their vehicles in the markets with confidence, thereby enabling efficient and effective inventories.

128 | Complete Vehicle Management

In addition to wholesale entrance and pricing, the NAMX inventory interfaces will likewise enable dealers to manage retail pricing and ecommerce. As a result, dealers can select any vehicle in the inventory interface for retail pricing, listing on their website, and listing on public websites as well. Before entering a vehicle in a public website, the interface will show the dealer all terms and cost if any. Moreover, NAMX will automatically remove any vehicle from the dealer's website as well as the public websites once the vehicle is wholesaled or retailed by the dealer. Furthermore, dealers will be able to automatically enter and price vehicles on the websites as well as in their showroom. The NAMX retail entrance and pricing automation is almost exactly the same as the wholesale automation with the only exception being a retail price rather than a wholesale price. To that end, dealers will be able to easily price vehicles by setting their retail price as a percentage and/or dollar amount over their cost or real time vehicle valuation. Dealers will also be able to utilize the NAMX inventory intelligence for retail pricing, i.e. the higher the rating the higher the price and vice versa.

129 | Automated Inventory Management

NAMX will enable easy and automated market entry of new and used vehicles into the wholesale markets with absolute control and the highest confidence at zero or near zero cost. To maximize retail inventory efficiency and effectiveness as well as bilateral adoption, NAMX will provide dealer members with free inventory intelligence and automation systems with technical support. Because demand for any new or used vehicle is likely greater at another dealership, inventory intelligence and automation systems will maximize wholesale supply and thus, maximize wholesale demand in NAMX, which will maximize wholesale transactions (NAMX revenue) as well as automobile sales.
## Approved Franchise Trade

### Sell

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### Buy

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**Message Management**

1. Check the Market
2. Ensure "AVERAGE" value is up-to-date
3. Verify all values are correct

---

**NAMX**

**Approved Vehicle Exchange**

- New Vehicle Exchange
- Vehicle Details
- Options
- Payment

**Note:** All prices and values are subject to change without notice.

---

**User Interface**

- Search for vehicles by make, model, year, or price
- Filter options by category, transmission, and more
- Save searches for easy access

---

**Dealer Administrator Login**

- Admin login and logout
- Vehicle database
- Sales and inventory management

---

**Standards**

- Vehicle inspection
- Compliance with industry standards
- Regular maintenance and service

---

**Contact Information**

- Phone: 123-456-7890
- Email: info@namx.com
- Address: 123 Main Street, Anytown, USA

---

**Additional Features**

- [ ] Vehicle history report
- [ ] Vehicle warranty information
- [ ] Vehicle recall status

---

**Select any vehicle to price and enter in the market**
<table>
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<tr>
<th>DEALER ADMINISTRATOR, Adam Smith</th>
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<tbody>
<tr>
<td>nAMX</td>
<td></td>
</tr>
</tbody>
</table>

**Vehicle Listing**

- **Make:** S40 V6
- **Model:** 2.4L
- **Year:** 2003
- **Color:** Beige
- **Mileage:** 12,345 miles
- **Notes:**
  - Inventory ID: 123456
  - VIN: 123456789012345
  - Auction Status: Sold
  - Price: $12,345
  - Condition: Good

**Options:**
- **Power Windows**
- **Power Locks**
- **Power Mirrors**
- **Sunroof**

**Vehicle Details:**

- **Engine:** 2.4L
- **Transmission:** Automatic
- **Fuel Consumption:** 25 MPG City / 30 MPG Highway
- **Body Style:** Sedan
- **Drive Type:** Front Wheel Drive

**Vehicle History:**

- **Previous Owners:** 2
- **Accidents:** No
- **Service Records:** Full

**Market Value:**

- **Retail:** $15,000
- **Wholesale:** $10,000
- **Retail Difference:** $5,000

**Select Vehicle:**

- **Priced:** $12,345
- **Enter Market:**

**Options:**

- **Finance:** Available
- **Trade-in:** Considered permanents.

**Seller Notes:**

- **Location:** 123 Main St, Anytown, USA
- **Contact:** (123) 456-7890
- **Terms:** Payment plan available.

**Additional Information:**

- **Vehicle Appraisal:** Provided by local appraiser.
- **Vehicle Certification:** Available upon request.
<table>
<thead>
<tr>
<th>STOCK</th>
<th>VIN</th>
<th>YEAR</th>
<th>MILEAGE</th>
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### Stock Info

#### VIN: 12345

**Make:** ABC

**Model:** XYZ

**Year:** 2023

**Color:** Red

**Mileage:** 30,000

**Price:** $20,000

---

**Notes:**

- **Description:**
- **Options:**
- **Condition:**

#### Inventory

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<td>$50</td>
</tr>
<tr>
<td>Frame</td>
<td>2</td>
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**Total:** $30,000

**Active:** $15,000

**In Stock:** $15,000

---

**Spot Price:** $20,000

**Floor Price:** $18,000

**Ara Price:** $21,000

---

**Confirm**
The dealer must provide a "spot" price, which is the amount the dealer is willing to sell the vehicle for. If it is lower than the marke price, the seller will not sell it.

A seller may alter the "floor" price option if he or she wishes to set a minimum price for the vehicle, which is not shown on the price list.

Furthermore, a seller may alter the "adjustable" price, which is a dollar amount that can be added to the "spot" price.

![Diagram]

- "Price adjustment": The seller can maintain a vehicle in the "spot" price list at different price points.

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130 | Wholesale Searching Criteria

Vehicles in the U.S. market are available in almost 1,400 model variations with billions of possible combinations of options and colors. Because NAMX will maintain all automobile characteristics and all factors of trade execution, buyers will be able to easily search for and locate new and used vehicles in NAMX based on criteria such as the year, make, model, mileage, segment, carmaker and aftermarket options, vehicle history elements, reconditioning costs and time, delivery cost and time, seller's price, price range, total cost, and total time before the vehicle is ready for retail sale. Moreover, the buyer may also search and locate vehicles based on retail criteria such as payment, including finance criteria and profit margin. As the members search for and locate vehicles in the market, NAMX will provide the accurate and real time value for each mile, option, condition, and total valuation for each specific vehicle they review. Therefore, the buyer may likewise search for vehicles based on the difference between the total vehicle costs compared to the real time value.

131 | Search Results Dissemination

Unless directed by the buyer, the search results will provide a list of vehicles that meets the criteria starting with the lowest delivered price (asking price, vehicle reconditioning cost, freight cost, and NAMX buy fee) and then sorted by delivery time. If desired, the buyer may adjust the order by any criteria available in NAMX. Within the listed results, the buyer may select any unit to review vehicle detail. Based on data interaction between the NAMX vehicle database and carmakers, all new and used vehicle detail will show feature and benefit information. Results will also show static pictures and video of the vehicle and options. Used vehicle results will include the inspection templates and provide visual clarity of the vehicle, options, and condition. For new and used vehicles, the buyer may review previous, current, and projected value as compared to the total delivered cost. What is arduous, ambiguous, and risky today will be very quick, clear, and totally guaranteed in NAMX. In seconds, each buyer will be able to review, understand, and acquire vehicles with total confidence.

132 | Wholesale Negotiation Capabilities

Rather than limit supply and demand to any place or time, NAMX treats them both as a constant. In other words, maximum value is everywhere all of the time rather than subject to any one place or time. Once a buyer has entered their criteria and reviewed the results, they may buy. If a buyer's bid meets the asking price or automatic accept price, the vehicle is sold. If the buyer's bid is less than the asking price or automatic accept price but higher than the floor price, the seller may:

1. *Accept the bid and thus, every part (synchronous) of the transaction is started*
2. *Counter-bid and negotiate until the counter-or-recounter is accepted by the buyer or the buyer's counter-or-recounter is accepted by the seller and thus, the transaction is started*
3. *Simply reject or ignore the bid, counter, or recounter, and thus, ending the process*

All buyer bids, seller counter bids, and recounter bids will be limited to a lifespan of one business day. The NAMX price negotiation systems will be a very close emulation of current wholesale price practices yet far more intuitive, easier, and faster with greater capabilities for buyers and sellers.
133 | Alternative Negotiation Capabilities

After the buyer has entered their search criteria and NAMX has returned the list of search results, the buyer may select, review, and bid on one vehicle with one seller or send many individual bids with instant cancellation of all remaining bids once the desired quantity is met. Moreover, a buyer may also refine the search criteria (vehicle, options, mileage, condition, cost, and time) and bid on all of the listed results simultaneously by also defining the bidding and quantity criteria. The bid criteria will consist of the starting bid, incremental bid, maximum bid, and maximum quantity. Once the criteria is entered and confirmed, NAMX will bid on behalf of the buyer within the search and bidding criteria. Due to the 24 hour lifespan for all bids, small incremental bids will likely slow the process. Assuming that sellers accept the bids and the quantity is fulfilled; all outstanding bids will instantly disappear. Because any bid in NAMX could instantly disappear, seller responsiveness to bids on new and used vehicles they truly need to wholesale will be high. Since buyers will be able to define and bid on any criteria and quantity with the push of a button, liquidity will be high as well.

134 | Automated Wholesale Capabilities

Based on the vehicle valuation and inventory intelligence, NAMX members can enable the constant automation of buying and selling. Example, a dealer could direct NAMX to automatically buy and deliver all new and used vehicles in the market with an inventory rating at or above 9.0 positive. Because the inventory intelligence automatically incorporates real time vehicle valuation, the rating would likely drop below 9.0 if the price exceeded the actual valuation. Moreover, the intelligence is based on the dealer’s specific inventory needs. As such, a specific model that equals 9.1 before it is acquired may equal 8.5 afterwards because the days of supply for that model has increased in the dealer’s inventory. Therefore, dealers can employ automated buying with complete confidence because the system incorporates cost, time, and values while intrinsically maintaining efficient and effective vehicle inventory based on the control and needs of each specific dealer. As discussed, the same capabilities will be available on the sell-side, i.e. automatically enter and wholesale each vehicle with an inventory rating at or exceeding 9.0 negative. With the NAMX automated systems, the members can be more conservative or aggressive by simply adjusting their ratings up or down.

135 | Late Customization Wholesale

The following system is unlikely to be included in the initial implementation of NAMX. In addition to the wholesale redistribution of new vehicles in dealer inventories, NAMX will also enable wholesale trade of new vehicles orders. In sum, the wholesale trade of new vehicles in the order fulfillment process will expand the potential vehicle variations available to dealers by enabling a dealer to buy an order that is close to production from another dealer and then customize the order on behalf of their customer. As a result, the buying dealer will increase consumer satisfaction and sales while also reducing inventory and costs. The trade of orders will likewise include new vehicles in transit. The trade of new vehicle orders will work exactly the same as all other NAMX wholesale trade.
- The search capability enables a user to search for vehicles related by year make, model, & options as well as by a segment such as sport utility.

- In addition to vehicle criteria, the buyer may also consider consumer finance offers such as interest rate, term, and monthly payment, and the dealer profit margin.

- To integrate the current inventory and vehicle criteria in the search, the buyer may also enable browse by text search at the top of the search results.

- Regardless of the search format, the buyer may easily adjust and/or add vehicle criteria such as time, option, and color to the new vehicle search.

- The interface dynamically adjusts and displays the exact values, dollar amount, and differences for all options while the criteria are added.

- The buyer may double-click any trim, package, option, or color to view the specific feature and function detail as well as graphical representations.

- The buyer may also double-click the market value of any option or color to view the historical data and graphical visualization of the value analysis.

- Due to the amount of potential combinations, the vehicle retail value (VRV) and relative market index (MRI) are based on the combined search criteria.

- From a minimum of 2 hours to a maximum of 7 days, the buyer may limit the search results by maximum delivery time, which is based on bidding.

- After the buyer has selected the criteria, the user simply selects the search option to view results with the ability of adjusting the criteria at any time.
**NAMX**

### Relative Retail Rating (RRR)

<table>
<thead>
<tr>
<th>MAKE</th>
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### Market Value

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### Relative Market Index (RMI)

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<td>1.24</td>
<td>0.64</td>
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</table>

**ADJUST**

- Torq: + $20,000
- Ext. Body: + $20,000
- Color: + $20,000
- Options: + $20,000
- Condition: + $20,000

**CONFIRM**

- **Maximum Time:** 7 Days
- **Validity:** 7 Days

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**NAMX**

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Note: The image contains a diagram with various vehicle specifications and options, along with price adjustments and confirmation details. The text is largely in bullet points, with some information in tables and lists.
Some remarketers seek to wholesale their vehicles before they come out of a fleet or their lease contract matures. To connect that future supply with demand, NAMX will include a futures market enabling remarketers to wholesale used vehicles before they are actually grounded. By selecting the date of availability and location where the vehicles can be inspected, remarketers will be able to enter vehicles in the futures market. After entering the location and availability date, a remarketer will simply enter the year, model, trim, and quantity. For pricing, they will define the quantity into groups according to options and then the range of colors, mileage, and reconditioning cost. After NAMX provides the remarketer with a low and high valuation, the remarketer will enter the asking, floor, and automatic accept prices. On the availability date, the NAMX inspectors will arrive at the remarketer's specified locations to inspect all vehicles that were sold in the futures market. After inspection, all vehicles that qualify based on their representation will be sent to the buyer via the freight market. For vehicles that fail to qualify, remarketers may adjust the price and the buyer may accept the adjusted price. Otherwise, those vehicles will enter in the spot market. Either way, all vehicle representations will be guaranteed. The upside is that remarketers can reduce cost and risk while the downside is that the last buyers are less likely to acquire vehicles due to rejections.

### 137 Vehicle Reconditioning Opportunity

Used vehicle reconditioning is a critical part of retail and as such, it is a critical part of wholesale. However, sellers and buyers have limited options and ability to have a vehicle reconditioned before it is wholesaled by the seller or delivered to the buyer. While some dealers insist on reconditioning vehicles they purchase, others prefer to focus their service capacity on retail customers and many simply prefer that all vehicles are reconditioned before delivery regardless of their service capacity. Moreover, a high amount of vehicle reconditioning value tends to be lost in the current wholesale market because reconditioning is not properly represented or guaranteed. Thus, the reconditioning investment is worth less than it should be. In fact, many dealers recondition all of the vehicles they purchase in spite of previous reconditioning. As such, those dealers must deduct that unnecessary cost from the price they can pay, thereby reducing vehicle value for all dealers and remarketers.

### 138 Vehicle Reconditioning Integration

Owing to the NAMX inspection, members will enjoy absolute confidence and clarity of any vehicle's reconditioned needs before it is sold or bought in NAMX. To enhance market capabilities, NAMX will use the freight capabilities to integrate auction reconditioning capacity in real time. Due to that integration, members will be able to easily review a list of reconditioning needs for any used vehicle and select exactly what they want reconditioned before the seller wholesales a vehicle and/or the buyer purchases a vehicle. The reconditioning option will include an aftermarket menu and show cost and time, including additional freight if required. Since auctions will provide distribution points for freight and are far more efficient at reconditioning, the option could easily lower cost and time.
139 | Integrated Facilitation Example

A buyer enters search criteria in NAMX for a used vehicle. For each eligible unit, NAMX computes the cost and time of reconditioning based on NAMX inspections and buyer preferences while also calculating the cost and time of freight from each of the sellers to the buyer. The best result is a freight cost of $123 and an arrival time of 1 day with a reconditioning cost of $216 and completion time of 2 days. Adding the seller's price of $9,750 with the buy fee of $174, the total reconditioned and delivered price is $10,263 and the time is 3 days. However, the buyer wants the vehicle to be reconditioned before delivery. As such, NAMX computes the cost and time of vehicle marshalling and reconditioning at each potential auction based on their administration and calendaring systems for cost and capacity. Including the cost and time of freight from each seller to each auction and then to the buyer, each auction's marshalling fee, each auction's labor rates, each auction's flat rates, and each auction's anticipated reconditioning capacity, the best result is a reconditioned and delivered price of $10,321 and 2 days of time or $58 more but one day less for the reconditioning option. The same holds true if sellers want vehicles reconditioned prior to or during market entry.

140 | Integrated Facilitation Importance

In the example above, supply of transportation, marshalling, and reconditioning is available to each buyer before bidding and can be easily executed with the push of a button, thereby providing far greater trade confidence, capabilities, and speed at a fraction of the cost and effort compared to any current or foreseeable alternative. As a result, the value of the products and services will be worth more to the buyer, which will increase their demand. Due to increased demand, facilitators will realize increased sales and thus, greater utility of fixed assets. Moreover, the distribution of those and all other facilitation products and services to the highest demand will be intrinsic, thus reducing their marketing and distribution cost while streamlining vehicle supply to optimal demand.

141 | Physical Auction Infrastructure

The auction's physical infrastructure will be very important to the NAMX markets. Their marshalling capabilities will enhance freight logistics and their reconditioning capacity will boost market trade. Moreover, their commercial finance services will increase market liquidity while their actual auction services will bring the entire new and used vehicle markets together as one industry-wide system to maximize efficiency and effectiveness for every single member and partner. Notwithstanding the capabilities of the NAMX inspection systems, NAMX cannot profitability guarantee all used vehicle, representations. Therefore, NAMX will initially limit all used vehicle trade to 7 model years and/or 70,000 miles among other factors such as vehicle condition and history. Within the current market of 29 million used vehicle wholesale transactions, those qualifiers will limit NAMX potential to about 12 million. To enable the other 17 million units of vehicle supply to higher demand, NAMX systems will integrate the technological and communication infrastructure of NAMX with the physical as well as technological infrastructure of the auctions to enable one system for all vehicle wholesale trade.
142 | Auction Wholesale Integration

To that end, NAMX will leverage the administration, communications, freight logistics, inspection, valuation, intelligence, automation, market, and settlement systems to streamline wholesale trade in and out of auctions with the greatest predictable efficiency. Those systems will enable inventory intelligence integration, manual and automated entrance, search and results dissemination, as well as ecommerce and retail integration very similar or exactly like the NAMX markets. Based on the initial NAMX inspection and the auction prices, the NAMX valuation systems will isolate elements of vehicle value and combine them to calculate precise vehicle values for units sold via the auctions. With NAMX, the cost of all freight, travel, depreciation, interest, human resources, settlement, and administration will be lower while wholesale capabilities will radically increase for auction activities.

143 | Auction Intelligence Integration

NAMX auction systems will include real time communication of all available capacity (lane and run numbers) at the auctions. When a seller scans a vehicle for wholesale that does not qualify in NAMX or an inspector rejects a vehicle for cause, the NAMX auction interface will appear with the best auction, date, lane, and run number. The assignment computations will be based on previous auction results and the cost and time of freight while enabling sellers to easily adjust the auction or date if desired. After a seller assigns any vehicle to an auction, the freight will be instantly available to all transporters. Once the vehicle has physically arrived at the auction, it will be inspected with the NAMX inspection system and sent to the proper parking space based on its pre-assigned lane and run numbers. As the vehicle runs through the lane, the auction activity will be broadcast live (current technology) to interested NAMX members for bidding. If the unit fails to sell at the auction, the vehicle inspection and auction video will remain available in the NAMX market until it is sold.

144 | Auction Entrance Integration

After vehicles have been inspected and perhaps reconditioned at the auction, the NAMX auction system will enable sellers to easily price the vehicles for wholesale at the auction and in the NAMX market. To set wholesale price, the seller simply enters the starting bid and the floor price - or the seller can use real time market value to set the price for one vehicle or all vehicles by entering the minimum percentage or a dollar amount over or under market value. In response, the system will show the likelihood of a bid meeting the price points and enable adjustment. To establish how the vehicle or all of their vehicles will be represented at the auction, the seller simply selects physical, virtual, or automated representation. Physical means that the seller will be at the auction, virtual means that the seller will represent the vehicle via live video online, and automated means that the NAMX systems will represent the vehicle based on the predefined criteria set by the seller for one or all of their vehicles. After the seller has set criteria for auction activity, the seller may enter the auction vehicles in NAMX with the same factors. Auction vehicles in NAMX will be represented the same as all other vehicles but without the representation guarantee unless assumed by the seller.
145 Auction Interaction Dissemination

In addition to lowering all cost, time, and risk of auction entry for sellers, NAMX auction systems will vastly improve vehicle representation, access, and confidence for buyers while reducing their cost and time of auction interaction as well. Each NAMX inspection will be available to all buyers in the auction lanes and online. For all online buying activity, vehicle representations will include all cost and time for freight and reconditioning plus the wholesale price and auction fees as compared to market valuation. Because there are many auctions and lanes, online buyers will be able to search for vehicles by model, time, and price criteria across many auctions simultaneously. Buyer may:

1. Buy or bid on any auction vehicle inspected and available in the NAMX market and/or
2. Setup automated bidding when the vehicle physically passes through the auction lane
3. Bid on the vehicle via live interaction online while it is in the lane (current technology)

Based on the buyer’s predetermined criteria or real time preference to bid on two or more vehicles that are available in different lanes or auctions simultaneously, the screen will automatically split accordingly. Based on the inventory intelligence, NAMX members can likewise enable a constant automation of buying and selling vehicles at the auctions with ratings, i.e. 9.0 positive or negative.

146 Automobile Appraisal Opportunity

Dealers tend to rely on inaccurate guide books for vehicle values and a rather ambiguous as well as incomplete vehicle inspection to appraise consumer trade-ins. Because the trade cycle is one of the most critical components of industry growth, it is certain that consumer trade-in appraisals impact all industry participants regardless of whether they are directly involved or not. Moreover, the amount of vehicle sales lost due to under appraisals and the amount of profit lost due to over appraisals is considerable. The NAMX appraisal will be a significant leap forward for dealers and the industry by streamlining the appraisal process and providing a real time and accurate valuation.

147 Automobile Appraisal Efficiencies

NAMX will combine the inspection, valuation, and intelligence systems to bring about a complete, standardized, quick, and accurate appraisal of any vehicle using the NAMX handheld, which is one of many reasons why the NAMX wireless environment and dealer systems integration is so critical to the automotive industry. The NAMX appraisal system will garner cosmetic, mechanical, as well as historical factors of each vehicle while also capturing factors such as the paint depth to uncover any previous paintwork. In a standardized step-by-step format that thwarts deviation, the NAMX appraisal system will be very efficient and effective. The inspection results will provide the cost of cosmetic and mechanical reconditioning as well as the real time valuation of the vehicle. Owing to the wireless environment and systems integration, the appraisal results will be instantly transferred to the sales management desk. Knowing that consumers are more emotionally attached to their trade-in than the vehicle being considered for purchase, trade-in valuations tend to be an arduous component of the vehicle sales process. To reduce or remove that tension, the dealer will be able to provide their consumers with the NAMX handheld to accurately appraise their own vehicle trade.
148 1 Automobile Appraisal Integration

Immediately after a vehicle has been appraised, the NAMX inventory intelligence will recommend wholesale or retail. If the dealer selects wholesale, the system will discern if the vehicle qualifies in NAMX. If the vehicle qualifies, the system will automatically assign an inspection for entry and will also assign the unit to service and then to retail until sold in NAMX. As such, dealers will be able to add value in the retail market with the independent and certified inspection while also maximizing value in the wholesale market simultaneously. If the vehicle fails to qualify in the NAMX market, it will be instantly assigned to an auction as well as the freight market for transport to the auction. To ensure that all customer trade-ins are not retailed or wholesaled until the initial transactions have been completed, NAMX will track all retail transactions via systems integration until each contract-in-transit clears the back office. Since dealers appraise vehicles that they are unfamiliar with on a daily basis such as a Cadillac dealer appraising a Porsche, NAMX will warrant a high percentage of the valuation for a limited period of time. Like all NAMX systems, the appraisal is based on current practices but will be far easier to utilize with vastly greater accuracy and capabilities. In short, the NAMX appraisal will streamline the process from accurate appraisal to optimal retail or wholesale.

149 1 Marketplace Messaging Systems

While the amount of NAMX systems may seem difficult or complex for the members to manage, it is precisely those systems that will enable easy and automated interaction with an estimated $300 billion wholesale market and $750 billion retail market. What takes weeks or months to accomplish in the current wholesale market will take mere minutes to complete and what is arduous in the retail market will be easily managed with the push of a button in NAMX - all with far less cost and vastly greater effectiveness. To enhance the ease of interaction further, NAMX will provide marketplace messaging that will enable NAMX systems to automatically communicate with members based on the criteria set by the members. Example: based on the member's criteria for automated entrance, the system enters and prices two vehicles in NAMX. Based on the member's messaging criteria, the automated entrance sends the member a message and link to the NAMX inventory interface for review and adjustment if necessary. Another example: based on the member's messaging criteria for vehicle valuation, the system sends an email to alert the member when the value of a specific model has increased or decreased greater than the defined amount over a defined period of time.

150 1 Enterprise Messaging Systems

Enterprise messaging will enable various associates in management, sales, finance, service, and administration to communicate with one another inside of one organization. Example: the vehicle inventory exceeds the defined limits set by executive management, which will trigger a message to the executive from the system. In response, the executive sends a message to the sales manager requesting an explanation or inventory adjustment. However, the sales manager is off duty so the system calls his or her cell phone and thus, the manager logs into NAMX and corrects the concern.
**The user may set the decision criteria for each system and enterprise message as well as how the messages are routed.**

- **The user may set the message criteria for each system and enterprise message as well as how the messages are routed.**
- **The user may set the criteria for each system and enterprise message as well as how the messages are routed.**

**Furthermore, the user may set the criteria for each system and enterprise message as well as how the messages are routed.**

This application manages what inventory intelligence messages are used and how they are managed in the New Vehicle Exchange Interface.
151 | Marketplace Support Systems

Every NAMX member will enjoy three ways of interacting with the NAMX markets and systems:

1. Desktop and laptop interaction will provide the easiest use as well as the highest clarity
2. Handheld interaction will enable slightly lower clarity but with far greater user mobility
3. Supportcenter interaction via a phone will enable the lowest clarity but the greatest mobility

The NAMX supportcenter will consist of four primary departments:

1. **Market Trading:** will enable members to interact with trade agents who can perform all market functions on behalf of members or provide systems and/or market information
2. **Freight Logistics:** will enable transporters to easily interact with logistics agents for their searching, planning, and sourcing freight as well as navigation and location based services
3. **Trade Satisfaction:** will enable buyers to easily resolve any conflicts between the vehicle representations and actual condition, all NAMX representations are absolutely guaranteed
4. **Technical Support:** will enable members to easily resolve confusion and/or malfunctions with NAMX hardware and/or software systems 24 hours a day from anywhere in the world

With the NAMX supportcenter, every member will have access to all NAMX systems and market capabilities from practically anywhere in the world at any time with complete functionality.

152 | Member Settlement Administration

It is important to all buyers and sellers to know and control how buying and selling will impact their floorplan and/or cash flow. It is likewise important to the market to ensure that buyers and sellers have the resources to buy and sell. Some buyers will enjoy 100 percent floorplan credit for buying used vehicles. Therefore, buying in the market will have zero immediate impact on their cash flow. However, some buyers will have limitations on their amount of floorplan credit available and/or the percentage financed versus the wholesale price paid. Therefore, every purchase will impact their cash flow. Further, it is possible that a seller could owe more on a vehicle than the price obtained in the market, which would impact their cash flow. To protect all of the buyers and sellers as well as the market, NAMX will integrate commercial finance and banking institutions with the market in real time. Based on that integration, the administrators can easily control the maximum amount of cash consumed using the administration system, including the amount per manager and/or vehicle.

153 | Commercial Settlement Integration

In addition to credit line and credit versus price limitations, commercial floorplan agreements also include title control. Example: a floorplan contract between a finance institution and a dealer may allow the dealer to hold the vehicle and title while an agreement with a rental car company could have the title held by the institution. To enable efficient and secure settlement for the commercial finance and banking institutions as well as the dealers and NAMX, the administration system will enable finance intuitions to easily integrate their agreements into the settlement systems, including the ability to control floor plan terms and/or limits. As a result, NAMX will be able to guarantee the floorplan payoff for each NAMX transaction and enable title delivery directly from the institutions to the NAMX clearinghouse, thereby decreasing risk, time, and cost for the institutions and dealers.
Secure Wholesale Transactions

The finance and banking integration also enables NAMX to limit entry, pricing, searching, bidding, and negotiation based on the amount of floorplan credit versus available or secured cash to ensure the appropriate resources for each possible transaction prior to transaction initiation. For example: a buyer’s floor plan credit is limited to 85 percent of the wholesale purchase price. Thus, the buyer must have at least $1,501 in the bank or secured to bid on a $10,000 vehicle since the integration will not allow that particular buyer to bid more than $10,000 on a vehicle until such cash or security exists. Another example: a seller owes $11,000 on floor plan with $1,000 in the bank or secured. Therefore, NAMX will not allow that seller to price or a buyer to bid on that vehicle below $10,001 because the cash or security does not exist to payoff the floor plan. Since NAMX guarantees the buyer, seller, and floor plan payoff, real time integration of cash and/or security transparency with wholesale trade is critical to market integrity. In the same way that every vehicle in the market will be available for sale at the price listed or sold for the price negotiated, every bid will be guaranteed.

Synchronous Vehicle Wholesale

The current vehicle wholesale structure causes inefficient and typically asynchronous settlement processes, wherein sellers and buyers must wait for part (A) to happen before part (B) can happen and so on, i.e. delivery, inspection, arbitration, titles, drafts, payments, floorplan, etc. As a result, vehicle wholesale settlement is slow and arduous while acting as another trade barrier. Because NAMX will be a cohesive market connecting all buyers, sellers, and facilitators while guaranteeing all vehicles, representations, deliveries, payments, and titles, NAMX will be a synchronous market. As a synchronous market, NAMX will enable every component of all transactions to flow instantly and simultaneously at a fraction of the current costs with zero risk. In short, NAMX will drastically increase the speed of vehicle wholesale in addition to NAMX market efficiencies and effectiveness.

Wholesale Settlement Timeframes

The NAMX clearinghouse will manage the collection and disbursement of all titles and payments related to all transactions in NAMX, which could also include wholesale transactions completed at the auctions. Once a transaction is concluded, the clearinghouse will collect the title from the seller via an overnight package system embedded in the NAMX settlement interface. Moreover, NAMX will collect payment from the buyer through an electronic funds transfer. In addition to payment for the vehicle, the payment will also include any services performed on behalf of the buyer such as reconditioning and/or transportation. After the payment and a clean title is received, they will be disbursed appropriately wherein the seller’s net proceeds will likewise reflect all services incurred. Every requirement of the settlement process will be subject to reasonably predefined timeframes for completion. If the timeframe for any part of a transaction should lapse, the transaction will be instantly assigned to a clearing agent for resolution. The agent may suspend the member until the concern is resolved. Repeated lapses will most likely result in a longer membership suspension.
157 Wholesale Settlement Interfaces
The member administrators will assign required settlement responsibilities to their associates such as titling, stocking, payables, receivables, floorplan, banking, as well as buying and selling. When one of those associates enters NAMX, their interface will immediately depict all outstanding activity for their area of responsibility. As such, the components of settlement and their timeframes will be shown in a settlement interface for each responsibility. When one of the associates responsible for titles enters the NAMX system, their interface will immediately depict all vehicles that have been wholesaled. For each title they have on hand, the associate will simply click the transaction in the interface. If their finance institution holds the titles, the finance institution associate responsible for that account will follow the same procedure. After the transactions and titles have been reconciled, the NAMX system will automatically print a sticker for the cover of an overnight envelope going to the clearinghouse, which will be prepaid by NAMX. Every other settlement responsibility, such as payables will use the interface with similar procedures, for instance: approval of electronic banking or floor plan debits. In brief, the settlement interfaces will enable a standardized and easy process.

158 Wholesale Settlement Disbursement
Once the title is received and deemed clean, the clearinghouse will electronically collect payment from the buyer’s bank and/or floorplan, which will be subject to additional clearance if necessary. The buyer’s payment will include the wholesale price, the cost of freight, the buyer fee, and other services if applicable. Shortly thereafter, the title will be reassigned and sent overnight to the buyer or the buyer’s finance institution depending on their agreement. Within a short period of time after receiving the payment, the NAMX clearinghouse will disburse payments to the seller’s bank and/or finance institution if the vehicle sold has a floor plan balance. Based on the wholesale price versus the floor plan balance, the clearinghouse will either debit or credit the seller’s bank account, which will likewise be subject to additional clearance if necessary. Furthermore, the NAMX clearinghouse will disburse electronic payments to the transporter’s bank and the auction if other services were incurred such as marshalling and/or reconditioning. In sum, the settlement system will be easy to utilize and will guarantee everyone and everything every time while also incorporating all wholesale settlement parts into one process, thereby increasing the speed of wholesale trade at far less cost.

159 Automobile Wholesale Interconnection
From entrance to exit, NAMX will enable at least $300 billion of secure, efficient, easy, guaranteed, and effective vehicle wholesale trade. On the face of it, the amount of NAMX systems may seem to complex or too much at once. However, it is precisely those systems that will enable utilization, implementation, and operations. With the exception of intelligence and automation, all systems are absolutely core and critical and thus, must be included. As for intelligence and automation, those systems will radically improve supply and demand and thus, bilateral acceptance. Since the entire system would be useless void of acceptance, those systems will reduce risk rather than increase it.
160 | Automobile Retail Integrations

Knowing that the ultimate purpose of wholesale is retail and that connecting the two will increase value in both, NAMX will include retail systems. Those systems will be a natural and technological extension of NAMX wholesale systems. In other words, the development of retail systems will not cost as much as one may believe, especially relative to their value for several reasons such as:

1. The core components of their functionality will be embedded in the systems required by vehicle wholesale in the first instance, therefore, the additional development will be minimal
2. Business managers and district directors who are required by the deployment of wholesale systems will also oversee retail systems, thereby having a minimal impact on operations
3. The value of the retail systems will promote acceptance of the wholesale systems, thus, reducing the cost of wholesale systems to a greater extent than the cost of retail systems
4. Retail systems will promote far greater wholesale transactions and thus, NAMX revenue to a far greater extent than the cost of developing, deploying, and managing retail systems
5. Albeit nominal compared to value, retail systems will create ancillary revenue, which will be subject to further collaboration with NAMX members, partners, as well as investors

161 | Wholesale Marketplace Leverage

For vehicles in the wholesale markets, the six market factors of wholesale trade for any vehicle are:

1. **Seller's price**: the asking or negotiated price that the seller must sell for in the market
2. **Freight cost**: the actual cost of automobile transportation from the seller to the buyer
3. **Freight time**: the actual time of automobile transportation from the seller to the buyer
4. **Reconditioning cost**: the actual cost of vehicle servicing to consumer ready status
5. **Reconditioning time**: the actual time of vehicle servicing to consumer ready status
6. **Buyer fee**: the total buyer's transaction fees or costs for a vehicle wholesale purchase

For the first time in history, NAMX will enable continuous access, accurate transparency prior to trade, and integrated execution of those factors. Moreover, NAMX will absolutely guarantee all vehicle representations, deliveries, titles, and payments for all wholesale transactions, which will also be a first. With those capabilities, NAMX will include a seventh factor that will enable dealers to leverage the wholesale market as their own inventory. The seventh factor is the dealer’s desired profit margin over the total cost of all market factors for each vehicle. Dealers will simply enter and adjust as necessary their desired profit margin as a dollar amount and/or percentage in the NAMX administration system. With market leverage, dealers will be able to effectively retail vehicles that are in the wholesale market to their consumers in real time, thereby increasing their inventory from a few hundred new and used vehicles on average to hundreds of thousands and perhaps millions.

162 | Marketplace Leverage Realities

Currently, most customers eventually tire of searching and actually accept what is available rather than selecting what they want or they simply postpone their purchase. That reality results in high inventories, vehicle value reductions, hyper competition, lost sales, and less profit. NAMX market leverage will vastly improve the dealer’s ability to provide what their customers want in real time. As a certain result, consumer satisfaction and thus, vehicle sales, prices, and profits will increase.
Omitting actual sales, basic consumer information is loosely or simply not captured during the sales process. While a few dealers use digital processes, most dealers handwrite consumer information on paper somewhere in the showroom where it sits until it is relocated and eventually thrown away. Inevitably, the vast majority of potential information is of no use to the sales representative, dealer, or carmaker. In the U.S. alone, franchised dealers annually invest approximately $8 billion dollars in advertising, about $48 billion in payroll, almost $7 billion in facilitation costs, a few more billion in floor plan interest, and over $150 billion in ongoing inventory on average. Yet, the average dealer does not know how many consumers were at their dealership on a given day, their demographics, contact information, wants and needs, or budget. The average dealer does not know how many consumers a particular representative greeted, how many and what vehicles were demonstrated versus actual sales, how many consumer trades were appraised, and how many sales were lost.
164 I Automobile Information Opportunity

While the 300,000 automobile sales people are well trained in procedures and tactics, they fall very short in product training as a group. Presenting a considerable challenge to product training is the turnover found in the turn-and-burn of dealerships, equaling over 70 percent annually in personnel with even greater turnover rates in sales. Such instability results in low effort towards the critical element of product knowledge. Thus, the sales force provides consumers with little value in terms of product information and as such, a tremendous amount of value and sales are lost since most consumers cannot appreciate the product value to the extent that it exists. The Internet provides a great resource for product information. In fact, studies assert that over 70 percent of consumers' research on the Internet before purchasing a vehicle. For many, product research prior to a vehicle purchase would indicate a counterbalance to poor product training. Not so. A study by J.D. Power and Associates concludes that the Internet-educated consumers tend to be far less satisfied in the purchase experience. With access to vast information, the consumer simply knows when they are not getting correct information. Since automobile sales take place at a dealership and not on the Internet, enabling the sales force with real time feature and benefit information is a big opportunity.

165 I Dealership Information Processes

To address the consumer and product information opportunities, NAMX will leverage the wireless environment provided to dealers for their wholesale and inventory activities to capture and transfer the appropriate information at the right time. The NAMX consumer information systems will enable the sales force to easily capture their customer's demographic and contact data in a non-intrusive way by scanning their driver's license in various ways depending upon the state. Because a copy of the driver's license is required by the dealer's insurance policy for test-drives, the process will be reasonable for consumers and less intrusive than writing it down. The digital information will serve as a guide for marketing and inventory while also providing a basis for a relationship management system. The NAMX product information system will enable all carmakers and suppliers to upload feature and benefit information, video, and animations to the NAMX vehicle database. Moreover, carmakers will be able to target their feature and benefit information or video at specific consumers by simply matching that collateral with demographics in the NAMX interface. As a result, the sales force will be able to provide rich information about every vehicle and option specifically tailored for each consumer in real time, thus, selling the options, features, and benefits as well as ownership.

166 I Information Administration System

The NAMX consumer and product information systems will enable significant functionality as well as total dealer control. The administration system will enable dealers to control the sales process from start to finish, including the introduction, criteria, demonstration, information, pricing, and the sales as well as finance management. In brief, the combination of market leverage and information systems will radically enhance the vehicle sales process for each consumer, dealer, and carmaker.
167 I Automobile Demonstration Process

Once the sales force has introduced themselves as well as their dealership and digitally captured the consumer's information, the NAMX retail system will enable the sales force to easily enter the customer's vehicle, budget, and delivery time criteria into the NAMX handheld or into a showroom kiosk. In response, NAMX will show a list of all vehicles that qualify in the dealer's inventory and in the NAMX markets. If the vehicle is in the dealer's inventory, the sales representative can simply direct the customer to that vehicle and/or other qualifying vehicles in-stock. If the vehicle is in the NAMX markets, the representative can direct the customer to the closest qualifying unit in-stock for demonstration purposes and/or simply review those vehicles in the showroom on a large monitor. Either way, NAMX will provide an excellent feature and benefit presentation for every vehicle and option as well as comparison information in real time. If the customer requests a used vehicle, the system will also provide an extremely detailed and guaranteed vehicle representation for every unit in the markets by virtue of the NAMX certified inspection, which will apply to every vehicle in-stock that has been inspected. In short, the combination of real time and interactive feature and benefit information with market leverage will maximize consumer satisfaction, vehicle sales, and profits.

168 I Salesforce Process Administration

Depending upon the dealer sets up their process, each vehicle on a customer's list can include the: 1) retail price; 2) delivery time; 3) cash down; 4) monthly payment; and 5) lease payment - on the lot and in the dealer's showroom. The finance and lease payments will be calculated by matching the consumer data captured at the outset with a baseline credit score database, thereby enabling a non-intrusive process without a credit application and/or report until appropriate. Because market leverage will maximize retail and thus, wholesale values while the markets will minimize trade cost, dealers will be able to easily wholesale aging stock, thereby minimizing inventory pressure. Since retail prices will include profit margin, it will be simply irrelevant to the dealer if maximum profit is realized from stock or in the markets. Albeit an unnecessary reduction of profits, dealers will be able to increase the likelihood of their vehicles in stock or in a dealer group moving to the top of the search results with a dollar amount advantage over units in NAMX, thereby maintain total control.

169 I Automobile Sales Management

At any point during the process, the NAMX sales control systems will provide dealer management with integrated negotiation, finance, and lease capabilities. Sales control will integrate the following critical factors of sales management among many other factors into one system for vehicle sales:

1. Customer information
2. Credit application
3. Credit reporting
4. Vehicle selection
5. Retail pricing
6. Trade-in appraisal
7. Trade-in allowance
8. Trade-in payoff
9. Customer cash
10. Carmaker incentives
11. Interest rate
12. Financing term
13. Monthly payment
14. Lease factor
15. Lease duration
16. Vehicle residual
17. Lease payment
18. Warranty sales
19. Insurance sales
20. Total costs
21. Total profits
170 | Sales Negotiation Administration

The usual format for negotiating the retail sale of an automobile is known as a four-square system, which consists of the: 1) retail price; 2) cash down; 3) trade-in allowance; and 4) monthly payment. The basic idea is to start with a very low finance term and thus, a high monthly payment in an effort to: 1) instantly raise the customer's thinking, especially regarding the monthly payment; 2) draw the customer's attention to that specific part of the negotiation; 3) elicit the consumer's objection to the payment and then get a commitment. In response, the finance term is raised and the retail price is hopefully maintained. While various dealers will use the four-square system differently, the general approach is to utilize cash down, monthly payment, and finance or lease term to maintain the retail price as well as warranty and insurance products if desired. The NAMX negotiation administration will enable the administrator to select the four-square system for price presentation and negotiation or the NAMX "pentagon system", which will incorporate market leverage into the process. Rather than discount price or lose the sale, the pentagon system will enable dealers to easily change the vehicle and/or options if the price, payment, or cash down exceeds the customer's budget while also enabling the optimal match between customer criteria, finance criteria, and the profit margin.

171 | Pentagon Negotiation Processes

The pentagon system will likewise enable the dealer to select a singular presentation (one or few options) or a matrix presentation (many options) of cash down, finance term, and monthly payment. Regardless of the format, the pentagon system will enable a highly effective yet non-confrontational approach by providing customers with rich feature and benefit information, the ability to accurately appraise their own trade-in, and optimally match the vehicle and options they truly want with their desired price and/or budget. If the initial vehicle criterion fails to meet the customer's price and/or budget expectations, the salesperson or manager can simply adjust the price, vehicle, options, and delivery time criteria in the pentagon system to enable a collaborative effort with the customer. If a customer is satisfied with one or more of the results but insists on a lower price, the manager can collect a deposit from the customer and bid on one or all of those vehicles at the same time in the wholesale market on behalf of the customer and/or to increase profit margin. Since all bids in the pentagon system will include yet conceal the dealer's predetermined profit margin, all bidding can take place directly in front of the customer, thus, increasing consumer satisfaction and confidence.

172 | Pentagon Negotiation Practicality

Because the NAMX markets will be synchronous and guarantee all vehicles, deliveries, titles, and payments, the dealers will be able to contract all retail transactions resulting from wholesale market leverage on the spot. While the pentagon system will not remove price negotiation, it will certainly begin to reverse the idea that dealers and carmakers are in business to give away automobiles. To that end, it will focus the customer's attention on the combination of vehicle value and their wants and needs rather than cutthroat pricing. The result will increase vehicle sales, prices, and profits.
173 | Dealership Operating infrastructure
What dealers want and truly need is one system that connects the various parts of their business. Since the automobile is the center of the automotive industry and new and used vehicle wholesale is the natural basis of all other activity, it is clear that one industry-wide vehicle wholesale market is the simplest and best platform for one dealer system. Therefore, NAMX will serve as the dealer’s operating platform by connecting the various factors of wholesale and retail in one system. To the extent that needed systems already exist, NAMX will connect those systems and they will compete to earn the dealer’s business on the platform. To the extent that needed systems do not yet exist, NAMX has already designed many other systems not described herein and will either develop and deploy those systems over time or simply license the technology to one or more dealership service providers. While the NAMX infrastructure and implementation is certainly aggressive, it is likewise undeniably logical and the value provided will be overwhelming, as will the returns on investments.

174 | Industrial Interconnectivity Security
As discussed previously, NAMX will not attempt to compete with the dealer management systems but rather, NAMX will attach to those systems. As a result, dealers will be able to easily manage all wholesale and inventory activity in the NAMX system. Moreover, dealers will be able to manage all retail activity with the NAMX systems or continue using their DMS interfaces. Administration and/or back office will initially use NAMX systems only for clearing wholesale transactions. As the NAMX systems connect other service providers and the platform grows over time to include other parts of dealer operations, dealers will be able to use the NAMX platform for their entire business. NAMX systems will reside in one localized application that communicates with NAMX through an extranet (private Internet connection) using 128 bit encryption. The application itself will act as the initial key for connecting with NAMX while the biometric security will provide the second key. Because the application can only be installed by a NAMX business manager or district director, NAMX systems will maintain one of the highest data security systems in the world to protect member information.

175 | Automobile | Marketplace Redistribution
"Ask your customers what they want... and give it to them." - Commandment One in Carl Sewell's book "Customers for Life". Mr. Carl Sewell is the owner of a dealer group in Texas and truer words about automobile retail have never been written. However, the physical realities of distribution and wholesale compromise the dealer's ability to meet the consumer's instant gratification expectations. NAMX will enable dealers to provide their customers practically any new or used vehicle they could want within four hours to three days in the vast majority of retail circumstances. While carmakers have invested over a billion dollars to reach a 40-day new vehicle order-to-delivery time, NAMX will enable a new and used vehicle order-to-delivery time close to one day in urban markets and about two days in rural markets on average. With the interconnected systems (page 20, paragraph 1), NAMX will reduce costs by billions of dollars while simultaneously increasing automobile sales.
176 Efficient Wholesale Apprehension

Owing to the degree of fundamental improvement that NAMX will bring about, it is very important to address potential concerns with how those improvements will impact the industry. On the face of it, it may seem as if an increase of wholesale supply will reduce wholesale values. While the concern can be established with prima fascia logic, further consideration concludes that NAMX will increase wholesale values by virtue of greater supply. While the zero or near zero costs of entering vehicles in NAMX will vastly increase vehicle wholesale supply, it is impossible for that addition to decrease wholesale value since those inventories already exist. By moving the existing inventories to higher demand and with far greater speed at a fraction of the cost:

1. Dealers will easily increase customer satisfaction and thus, retail values and sales
2. Dealers will increase retail values and sales with less inventory, thereby reducing costs
3. Vehicle wholesale values will increase due to competition for retail margin over time

Since the cost of wholesaling vehicles in NAMX will be zero and vehicle prices will be higher, the NAMX value for millions of automobiles wholesaled by remarketers and the millions of vehicles in dealer inventories will be just as overwhelming as the clear case for vehicle retail sales and prices.

177 Dealership Efficiencies Distributions

While NAMX will provide every dealer with massive value, a few larger dealers could be concerned that NAMX (especially market leverage) will diminish some of their competitive advantages over smaller dealers. Compared to larger dealers, the medium and small dealers are less likely to meet specific customer demand since they stock fewer vehicles and thus, NAMX will radically enhance their ability to satisfy their customers, which is the very intention of the franchise system. However, larger dealers usually enjoy far greater assets such as human resources, capitalization, facilitation, location, inventory, and marketing. As a result, larger dealers attract far more customers, trade-ins, and vehicles sales. Therefore, NAMX systems such as vehicle valuation and appraisal, inventory intelligence and automation, market and auction integration, and pentagon negotiation will improve their operational productivity to a far greater extent than the smaller dealers. Moreover, the NAMX market leverage will likewise increase the sales and profit for larger dealers to a far greater extent than smaller dealers because they will have more opportunities to use NAMX. In reality, the larger dealers will maintain their competitive advantages while smaller dealers will be able to serve their customers far better. In sum, all dealers will earn far more profit with lower cost and higher sales.

178 Automobile Wholesale Advertising

Regardless of higher sales and profits, a few dealers could be concerned with how market leverage capabilities will be utilized by dealers with a propensity to give away vehicles and as such, diminish prices for other dealers. While NAMX cannot influence pricing decisions, NAMX members will not be allowed to advertise or reference NAMX market leverage or vehicle valuation in any publication whatsoever. All NAMX systems and capabilities can only be referenced and utilized in the physical dealership environment. Violations will result in suspension or expulsion of NAMX membership.
179 | Automobile Wholesale Regulations

In addition to membership rules that will impede publication and misuse of NAMX capabilities, any member will be able to exclude wholesale trade with any other member for any reason whatsoever, including disagreement with another dealer’s practices. Therefore, the dealers with a low inventory investment as well as poor retail practices will probably be excluded by other dealers in NAMX, and thus, the NAMX capabilities will be vastly diminished or utterly removed for such dealers. While that may seem like an anti-competitive mechanism, it is not. Dealers simply have the right to not wholesale vehicles to any entity for any reason; that mechanism will ensure that NAMX dealers can effectively maintain that right in NAMX. While NAMX rules will undergo further state and federal legal scrutiny, initial review finds that NAMX rules will be within the letter and spirit of all U.S. laws.

180 | Automobile Production Utilizations

While NAMX will undeniably increase vehicle sales and as such, improve production utility (amount of actual vehicle production versus production capacity) for carmakers, some carmakers will likely be concerned with the initial impact of inventory efficiency enabled by NAMX on their utilization of fixed cost, i.e. land, labor, and capital. Owning to the efficiency of NAMX, dealers will simply need less vehicle inventory to sell more vehicles at a higher price. As a result, dealers will initially order fewer vehicles from carmakers until inventory levels equalize with the amount of efficiency, which will inevitably increase dealer orders and production utility. While all carmakers are acutely aware of the need for more efficient inventory, they will want to understand the initial impact on their utility of fixed costs. Due to the need for thousands of field agents (district directors, business managers, and certified inspectors) to enable the implementation and operation of NAMX, the initial impact of efficient inventory on production utility will be low because NAMX will require years to hire and train the appropriate number of agents. During that time of NAMX implementation and growth, sales will begin to rise at a greater rate due to inventory effectiveness than the initial fall of dealer orders due to inventory efficiency, thereby increasing overall dealer orders in a short period of time. Therefore, the initial impact will be shallow and short while the short and long-term impact will be very positive.

181 | Carmaker Wholesale Considerations

As discussed [046], some carmakers wholesale their used units directly to their franchise dealers via an electronic captive system. So, it may appear as if they have minimized cost and maximized vehicle values and thus, they may question their need to utilize NAMX. However, it is very unlikely or impossible that those systems will ever address: [012] inventory displacement, [025] new vehicle wholesale, [034] freight inefficiencies, [035] used vehicle wholesale, [036] vehicle redistribution, or [114] vehicle valuations. While those systems may be better than traditional processes for a limited number of vehicles, they cannot enable: [055] interconnected supplies, [118] inventory intelligence, [125] automated wholesale, [146] vehicle appraisal, [154] synchronous and connected settlement, [161] wholesale market leverage, or [170] effective retail processes for maximizing vehicle values. Unquestionably, every carmaker will be far better served utilizing NAMX than any other alternative.
The legendary automobile designer Harley Earl once said "you can design a car so that every time you get in it, it's a relief - you have a little vacation for a while." Of course, the relief and vacation are subject to the consumer's ability to get the vehicle they actually want. Knowing that design and production can build a vehicle for every purse, purpose, and person but the consumer's access is diminished as a result of poor distribution, the consumer's willingness to buy is likewise diminished regardless of those design and production capabilities and/or dealership facilitation and resources. Moreover, the same distribution inefficiencies increase costs by tens of billions of dollars while also compromising profitability for every dealer and carmaker in a negative sum game that forces hyper competition. With consideration, there is no doubt that redistribution is the only viable solution. To that end, efficient vehicle redistribution will never be enabled by fragmented carmaker systems with a clear conflict of interest but can only be a result of buyers and sellers establishing an equilibrium price in one industry-wide vehicle wholesale market. While some carmakers currently benefit from their dealer trade and captive wholesale fees, it is certain that NAMX will reduce costs and increase prices, sales, and profits for those carmakers to a far greater extent than their captive systems.

183 Wholesale Transaction Reasoning
The probability of a new or used vehicle maximizing its value at any one dealer is very low, hence the underlying demands for new and used vehicle wholesale trade in the first instance. In fact, the need to wholesale vehicle inventory to higher demand is so extreme that it withstands about $42.6 billion of cost and loss of vehicle value or approximately $1,253 per vehicle based on conservative estimations. Notably, those calculations do not consider millions of other vehicle retail sales in the U.S. market that would certainly increase in value if the wholesale markets were improved. If the transparency and accessibility between every buyer and seller was optimal and the cost, time, and risk of vehicle wholesale trade was zero, almost every retail transaction would be a direct result of vehicle wholesale trade. Moreover, vehicle inventories resulting from initial distribution and vehicle wholesale would be adjusted with greater frequency and as such, there would be more wholesale trade than retail. Because NAMX will enable near perfect transparency and accessibility between buyers and sellers as well as market leverage and retail integration while reducing cost and time by more than 80 and 90 percent respectively, it is certain that NAMX will increase wholesale trade.

184 Marketplace Transaction Projections
NAMX estimates that potential transactions in the U.S. market are at least 10 million new vehicles and 20 million used vehicles in NAMX with another 25 million used vehicle transactions through the NAMX auction partners for a total of 55 million transactions or roughly 162 percent more than the current markets. In spite of potential, the NAMX financial model only considers current wholesale transactions and thus, bases all funding, growth, cost, and profit factoring on a market of 5 million new and 12 million used vehicle wholesale transactions or only about half of reasonable potential.
Penetration of Vehicle Wholesale Markets (33 Million)
185 1Automobile Auction Interconnection

The NAMX financial model has required thousands of hours and is one of the most detailed as well as conservative models ever produced with well over one hundred thousand separate calculations and interaction with hundreds of firms for cost calculating. However, the model does not calculate auction partner profitability because the costs of auction operations are simply unknown to NAMX. Nonetheless, the model does provide a conservative basis for estimating auction partner revenues. To that end, NAMX estimates that the combination of NAMX market systems and freight logistics will streamline at least the following through auction partners: 1) auction transactions - 17 million with an average fee of $150 for about $2.5 billion of revenue; 2) auction reconditioning - 17 million at $85 per for about $1.4 billion of revenue; 3) NAMX reconditioning - 25 percent of 12 million used wholesale transactions equaling 3 million vehicles reconditioned at an average of $250 per vehicle for $750 million of revenue; 4) NAMX marshalling - 33 percent of 12 million wholesale transactions equaling 3.9 million with a fee of $25 per vehicle for $99 million of revenue; 5) vehicle inspections - 50 percent of 17 million equaling 8.5 million at $58 per unit for $493 million of revenue. In addition, NAMX will increase the amount of floor planning revenue for auction partners while reducing their risk and costs of providing that service. Omitting floor plan revenues and market growth logic, the potential auction revenue exceeds $5 billion as a result of NAMX systems in the U.S. market alone.

186 1Marketplace Human Resources

As discussed previously, the ability of NAMX to enable market efficiency and effectiveness will rely on a combination of physical processes and technological systems. Therefore, NAMX must recruit, hire, and train a significant amount of vehicle inspectors, business managers, district directors, and support as well as clearinghouse agents. While the technological systems will guide almost all of the training and physical processes, the number of associates needed to provide market capacity will present a clear challenge to NAMX growth. Fortunately, the industry opportunity combined with NAMX solutions will bring about more than enough revenue to aggressively recruit a strong team of talent with compensation, benefit, and bonus plans that will be significantly greater than competing firms offer for the same talent. The compensation plans for all NAMX associates and management will be performance based. Initial training will last two months and consist of modules and testing in text, video, and simulation formats with cross-training and ongoing performance monitoring. In part, NAMX will manage resource challenges by being a great firm for career-minded associates.

187 1Targeted Marketplace Implementation

To further address the challenges of providing market capacity, the partner administration systems will enable operating partnerships and revenue sharing with a few select firms that are equipped to provide market trade services such as payment clearing, title perfecting, and vehicle inspection to the extent possible. Regardless of the services provided by an operating partner, all activities will be performed using the NAMX systems to ensure quality, consistency, and precise accountability.
188 | Targeted Marketplace Implementation
Adding to aggressive recruiting and training as well as operational partnerships, NAMX will further reduce the challenges of providing market capacity with area and regional implementations. Owing to the roadways and weather, NAMX will initially deploy in the Southeast (FL, GA, SC, NC, TN, and AL) followed by the Mid-Atlantic, Northeast, Midwest, Central, and Western regions. Four months prior to market launch, NAMX will begin establishing marketplace memberships and partnerships with hardware installations and systems training in the largest cities first, followed by expansion to rural areas over time. As a part of the inspector training process and to assist with market critical mass, all vehicle inspections will be completely free two months prior to live market launch in the Southeast. On the first day of live market trading capabilities, NAMX anticipates a minimum of 779 dealers, 40,000 vehicles, and 749 transporters in the market as supported by various auctions and other marketplace partners. As each region is preparing for launch, the next region will likewise be preparing for launch. Within two months of each regional launch, the next region will launch. In the same way that each new member brings added value to every other member, each new region will increase the value of NAMX to its members and thus, increase the adoption and transaction rates.

189 | Automobile Auction Implementation
While the NAMX implementation will be subjected to physical resource limitations, NAMX auction partners will be able to utilize the NAMX administration, inspection, valuation, and freight systems nationwide on the first day of systems readiness. Thus, the NAMX auction partners will be able to vastly improve their vehicle inspection and representation capabilities almost immediately, thereby enabling far greater transaction rates within their current physical and online systems. Owing to the administration and valuation systems, their buyers and sellers will trade with almost complete transparency, confidence, and control while vehicle freight to and from auctions will be immediately more efficient and effective by virtue of NAMX freight logistics. Moreover, the initial NAMX systems will also enable the auction partners to provide their buyers and sellers with vehicle reconditioning transparency per vehicle in a menu format with push-button execution of those services. Thus, the NAMX auction partners will realize appreciably lower operational cost per transaction while likewise increasing their transaction rates practically overnight and on a nationwide basis for a rapid return on their investments combined with a defined path to about $5 billion of revenue in the U.S. alone.

190 | Auction Implementation Relationship
While the NAMX technological systems and infrastructure will bring significant value to the auction partners, their physical infrastructure and current technology will bring massive value to NAMX. At the outset, NAMX auction partners will play a substantial role in testing, improving, and proving the capabilities of almost all NAMX systems prior to launch. As a result of the auction implementation of NAMX systems, the NAMX markets will realize far more critical mass than necessary for freight logistics and market trade while providing members and partners with proven systems on day one.
Although particular embodiments of the invention have been described in detail herein with reference to the accompanying drawings, it is to be understood that the invention is not limited to those particular embodiments, and that various changes and modifications may be effected therein by one skilled in the art without departing from the scope or spirit of the invention as defined in the appended claims.
**Patent Claims**

*What is claimed is:*

1. A system for control, distribution and purchase of wholesale goods and related interactions, said system comprising:
   a computer system configured to control, distribute and purchase wholesale goods.

2. A system according to claim 1, wherein said wholesale goods are vehicles.

3. A method for control, distribution and purchase of wholesale goods and related interactions, said method comprising:
   controlling, distributing and purchasing wholesale goods.

4. A method according to claim 3, wherein said wholesale goods are vehicles.

5. A system as substantially described herein and illustrated in the enclosed figures, tables and flowcharts.

6. A method as substantially described herein and illustrated in the enclosed figures, tables and flowcharts.