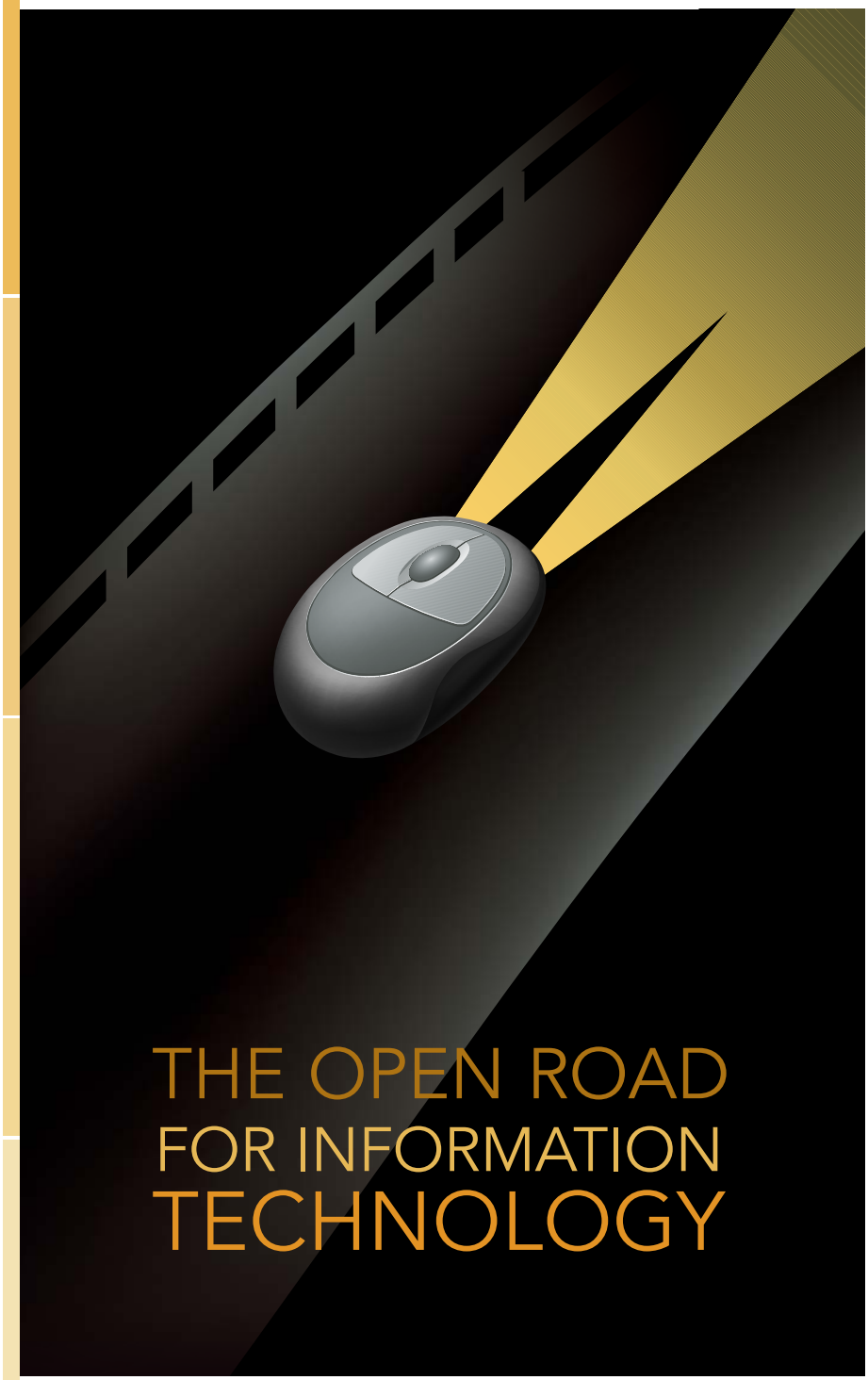
A Standards for Technology in Automotive Retail (STAR) white paper



THE OPEN ROAD FOR INFORMATION TECHNOLOGY

Reducing Costs and Expanding Choices for Automotive Retailers

In the early 1920s, many car buyers were suspicious of models that were commonly known as "assembled." These were cars that made use of parts supplied by outside firms with names such as Timken, Borg, Harrison and Auto-Lite. Some people wondered: Shouldn't vehicles be crafted with unique parts? Isn't that what made a car distinctive and durable?

Soon, however, the benefits of using supplied parts, some of which were interchangeable across model lines, were proved beyond doubt. This system was efficient, capable of handling the huge volumes of production, and reduced costs. Today, the parts supplier base provides a majority of parts that assemblers require to build cars.

In much the same way that the early parts industry was made more logical and efficient, the auto industry is today striving to set voluntary standards for exchanging information over computer networks. The problem (as with our example of the "assembled" car parts) was that as auto companies early on adopted the new computer and software technologies, they chose to build with proprietary languages and communications tools. The "not invented here" syndrome reigned supreme in data processing. The result was a dizzying array of systems and platforms, few of which could communicate with each other. Auto companies had no standard way to send and receive data, much as you might send a standard business letter in a No. 10 envelope with an agreed-upon address format and ZIP under the approved 37-cent stamp. The industry created a computer and software capability that too often was costly, inefficient and frustrating.

With the rise of the Internet, a solution came quickly into view. Why not push data quickly and securely over this "network of networks" so that a global industry could communicate easily and universally? Instead of setting up more proprietary point-to-point lines, the industry could be connected in a many-to-many framework – the literal picture of a Web. Well, easier said than done. The huge installed base of computer systems in the auto industry, which performs everything from sophisticated crash test modeling to reporting sales data, could not be reengineered overnight. Some companies literally had thousands of disparate systems. Yet, despite these formidable roadblocks, the industry pushed on, in all areas. In fits and starts, the effort to build a Web-based auto industry was well underway as the 21st Century dawned.

The STAR Benefit Promise

For the automotive retailer, the pay off for conversion to STAR standards promises to be huge:

- Reduced software, infrastructure and communications costs.
- Rapid implementation of new computer and communications applications.
- Less complexity and faster throughput for daily business transactions, including parts orders and credit applications.
- Seamless connectivity with retail industry partners and vendors.
- Real time access to business information and Internet customers.
- The flexibility to use a variety of computing platforms.
- Better use of existing dealership technology and business information.

In the manufacturing sector, parts suppliers are now using standard data formats to communicate information such as parts shipments to assembly plants. Where once parts makers had seven or eight phone lines to various

customers, they are now using a single Web link with data formats that can be read by all customers. They are at last speaking a common language.

In the automotive retail industry, the push to uniform data exchange formats is being spearheaded by a cooperative body known as STAR (Standards for Technology in Automotive Retail). The group is comprised of manufacturers, dealers and Retail System Providers, or RSPs. The manufacturers are fully behind STAR because it is their vision that all data communications, in time, with dealerships will be conducted over the Internet. As for the RSPs, these are the information technology partners who provide everything from full-scale dealer management systems (DMS) to specific services aimed at dealer operations in finance, service or parts. The dealer body is represented at the STAR table by the National Automobile Dealers Association, STAR's Dealer Advisory Group (DAG), and CCAQ, (La Corporation des concessionaires d'automobiles du Quebec), a Quebec dealer association. The DAG members, many of whom are technology leaders in the retail sector, are looking for solutions for reducing costs and standardizing IT functions.

STAR's goal is to simplify business transaction processing. While IT standards are the focus, the STAR effort is really about streamlining business processes. This is not a technology for technology's sake operation. Streamlining business processes means, inevitably, a more efficient retail automotive industry and more satisfied vehicle buyers.

"Any time I can leverage the Internet, I'll be a better retailer," says Mark Rush, general manager of Rush Lincoln-Mercury in Columbus, Ohio. "It's a great tool to get my employees to take better care of my customers."

Rules of the Game

How, exactly, does a standard data format streamline a business process? STAR has developed dozens of new tools for highly specific retail processes such as parts locating, labor cost lookups, vehicle model codes and scheduling service appointments. As these business transactions, or processes, are defined in a standard way, STAR makes them available to manufacturers, retailers and RSPs at no cost. These standard formats are then incorporated into Web-based systems at all levels of the retail business. The Web browser becomes the window into this common world where customers, manufacturers and dealers can communicate in an intelligible language that is easily "understood" by just about any computer system.

STAR is enabling this massive shift to a standard data format in the retail business. But it is also doing something with potentially far more significance – it is unleashing a powerful entrepreneurial drive and creativity. With business processes streamlined and handled in a standard or "open" format, suddenly the playing field flooded with new players. Everyone knows the rules of the game (using the STAR rulebook) and competition intensifies. Where a dealer might have had, in the past, only two or three real choices among DMS vendors, he or she now may have more than a dozen. Where the dealer may have had to manage multiple factory communications lines and vendor relationships for leasing and lending, there are now Web-based portals that

aggregate this data for the dealer, using STAR standards. STAR has, for example, crafted a common description of information needed from vehicle buyers applying for leases and loans. This not only simplifies the credit application process, but speeds processing time. In almost every conceivable area of the retail business, from communications to sales, there will arrive new vendors, new entrepreneurs and new ideas that have the potential to radically improve the retail experience for buyers of cars and trucks.

Already, the STAR initiative has attracted a variety of technology partners that are using the new technology to streamline operations and improve the customer experience. Established DMS providers such as Reynolds & Reynolds, ADP and UCS have joined the STAR group, along with several newer entities developing Web-based systems. New players, such as Oxlo Systems Inc. and Playing Field, are springing up to provide the interfaces, or links, that will help dealers connect their DMS to factories, banks and other partners and even provide connections to other systems at the dealer's store. RouteOne LLC, a cooperative venture of DaimlerChrysler Services, Ford Motor Credit Co., GMAC and Toyota Financial, is working to integrate and speed the credit application process through a STAR-standardized service. Dealers, according to RouteOne, can access a number of competing lenders through a single portal. Cyclone Commerce Inc., a company that specializes in integrating computer systems for online business, is implementing technology that will allow VW and Audi dealers to communicate with the factory and with other business partners. The Cobalt Group, which provides a variety of applications for the dealer body, is developing STAR tools for such things as inventory management, sales leads and CRM applications. The standardization movement is going global. There are discussions underway in Europe for a STAR-like cooperative venture on retail IT standards. And, in late 2004, STAR and AutoDESA (Automotive Data Exchange Standards Australia), the IT standards body for the Australian retail industry, agreed to begin working together on joint projects. Also in late 2004, CCAQ, the association representing 90 percent of new car dealers in Quebec, Canada, joined STAR with the intent of adopting its new standards. The roster of STAR partners is expanding steadily.

Volkswagen and Audi dealers have more choices among DMS providers.

A shift to common IT standards has dramatically expanded DMS options -- now and in the future.

Before STAR

ADP
Reynolds & Reynolds

After STAR:
VWoA Certified RSPs as of 1/1/2005:

1. Reynolds and Reynolds ERA USA & Canada
2. ADP Elite USA & Canada
3. Autosoft-ASI USA & Canada
4. PBS Systems USA & Canada
5. Serti Informatique Canada
6. ADP Alliance Canada
7. Neosynergy USA & Canada

RSPs currently in testing or planning for 2005 releases

1. Automate USA - using Oxlo
2. Megawheels Canada - using Oxlo
3. ACS USA - using Oxlo
4. DDS (Dubuque Data Services) USA - using Oxlo
5. Logical Sequence Canada - using Oxlo
6. ADP Alliance USA - using ADP
7. ADP Automotive Retail Group USA - using ADP
8. R&R Generations Series USA and Canada - using R&R
9. Arkona USA

RouteOne's quest to improve the credit application process is focused on one of the more complex and time consuming tasks faced by car buyers and dealers. Until now, separate communications links with vendors have required proprietary computer interfaces (which locked dealers into specific vendors). By providing a single portal for credit applications, powered by STAR technology, RouteOne has greatly simplified the process and enhanced opportunities for new financial firms to enter the automotive retail market.

"We're here to remove dealer complaints about all the proprietary systems," said Joel R. Gruber, RouteOne's Chief Information Officer. "Speeding up the flow of commerce is really what we're all about."

More enhancements are ahead. RouteOne is working on integrating financial reporting across different DMS technologies so dealers can access a single report to review F&I activity. As more STAR standards are created, and dealers work increasingly in an open IT landscape, Gruber predicts that, with STAR, the retail automotive industry will have a much easier time of developing all sorts of IT tools "we haven't even thought about yet."

A Common Language

When can we expect this STAR-enabled transformation to take place? It's already happening. Dealers, in particular, are hopeful of reducing costs for their core Dealer Management Systems and factory communications. Tom Arden, vice president and partner at Downs Ford Inc. in Toms River, N.J., is hoping that the STAR initiative will eventually lower DMS costs while improving the quality of the data. "If manufacturers standardize the way they communicate with our stores, DMS providers should be able to pass through the cost savings to their customers, the dealer body," Arden predicts. "Rather then write separate code for each manufacturer, they will be able to write a single code that works for all."

He's already seeing the benefits of competition, and the entrepreneurial energy that an open standards system is providing the retail automotive market. "As a Ford dealer, I now can choose from more than 10 Ford-certified DMS vendors," Arden said. "The lower start-up costs resulting from STAR standards were likely a key factor in these vendors' decision to go to market."

One of the earliest and broadest adopters of STAR standards on the sales and marketing side is Volkswagen of America. In the first quarter of 2005, the company will move 850 out of 1,050 Volkswagen and Audi dealers in the United States and Canada to a STAR-enabled communications system. The existing satellite data communications system was scheduled to be taken down in January 2005. Under the old VW system, dealers were paying fees to both the DMS provider and the factory. Even so, little or no improvements to the communications systems took place for years. Now, dealers will have not just two choices, but 11 among the DMS providers.

"We don't want to steer dealers one way or the other," said Eric Conn, Partner Integration Specialist at VW.

Who is STAR?

The Standards for Technology in Automotive Retail (STAR) organization is the Information Technology (IT) standards body for the retail automotive industry. The goal of STAR is to use IT standards as a catalyst in fulfilling the business information needs of dealers and manufacturers while reducing the time and effort previously required to support this activity.

Collectively, STAR develops industry standards and researches emerging technologies for the benefit of dealers. Their mission: Establish voluntary industry standards for the exchange, management and integration of information that supports the management, delivery and evaluation of retail automobile products and services. Specifically, that mission calls on STAR to create flexible, cost effective standards and methodologies for interoperability between IT systems.

Headquartered in McLean, Virginia, STAR is a not-for-profit volunteer organization and its members include dealers, manufacturers and retail system providers (RSPs). As members, they are interested in developing, promoting and administering voluntary IT standards in the retail automotive industry and improving the effectiveness, timeliness and competitiveness of the IT solutions needed within the retail automotive industry.

The STAR membership is organized into subcommittees and special interest groups (SIGs) where the subcommittees are directly responsible for the overall direction and management of the STAR organization. The SIGs serve as "test beds" for exploring new areas of interest that may need new or enhanced IT standards.

"We're trying to save the dealers money and give them more options." How much money? He says it's not unrealistic for dealers to save $100,000 annually by going to the standardized IT world. An estimated 150,000 transactions are handled monthly by VW for its dealer body. Conn puts a "conservative" cost savings estimate on the new standardized data flow at about 33 cents per transaction.

VW and Audi dealers will be using STAR data formats for such core functions as parts shipments and returns, financial statements, repair orders and warranty claims. The STAR data formats were also enhanced to suit VW and Audi requirements, a flexibility that points to the adaptability of the standards. This is important because retailers have often built up unique business processes. The standards, where possible, should be adaptable to the business process, not the other way around. The standardization movement, Conn is quick to point out, is happening not just at the retail and manufacturing level, but everywhere in the IT world. That's taking place because the business world – as the chief consumer of information technology – is demanding computer and software tools that work for business people. "It's not an IT driven issue," Conn said. "Ultimately, it's a business process in the dealership."

Conn sums up the VW shift to a STAR enabled world this way: "Dealers just want to sell cars and make customers happy. They don't want to be in the IT business."

Dealer Benefits

That sentiment is echoed by John Belen, IT administrator for Williams Auto World, a multi-franchise (VW-Audi, BMW, Porsche, Mercedes-Benz, Subaru) dealer with stores in Lansing and Okemos, Mich. He predicts nothing less than "phenomenal" benefits from ongoing STAR standardization. In particular, he's looking forward to the day when dealers will not have to manage multiple factory communications lines, incompatible DMS systems, and any number of one-off vendor applications that serve separate departments, such as F&I and parts. STAR, over time, promises to rationalize and simplify his job by providing a more uniform data flow between all points.

"The benefits go a long way," Belen says. "It saves the dealership personnel a great deal of work."

In early 2004, Williams Auto World conducted a pilot test of a Web-based DMS product that incorporated STAR standards. While the system proved not ready for prime time, it gave a tantalizing glimpse of what's to come. Belen is sure that the new STAR-enabled world will introduce "true innovation" in the DMS market, something he hasn't seen for more than a decade. "There's a little healthy competition out there right now and we'll keep that going," Belen says.

STAR Steering Committee

Chair
Paul Elert
ADP

Co-Chair
Simin Mofidi
American Honda Motor Co., Inc.

Communications Chair
Dick Malaise
National Automobile Dealers Association

Education Chair
Jose Reyes
PROCEDE Software

Membership Chair
Dave Lester
Sun Microsystems

Secretary Chair
Ghezal Khalili
STAR

Special Interest Group (SIG) Chair
Eric Purdum
BMW of North America, Inc.

Treasurer
Vic Zappia
American Suzuki Motor Corp.

He points to the parts department as an area where improvements will be welcome. Parts managers at Williams Auto World are looking for a better, more intuitive computer interface in its DMS system for handling special orders, and a more customizable set-up for phasing parts in and out of the system. Inventory management is a keen area of interest. Now, Williams Auto World managers are using an application that "bolts on" to the DMS – and it's less than ideal.

With the new STAR-enabled VW communications systems, Belen is looking forward to the time when parts stocks are automatically replenished, as the parts department information is automatically pulled in real-time. That way, the dealer and the factory can set agreed-upon stocking levels and criteria for adding and deleting parts to the system. Parts deliveries should be handled in a 48-hour cycle. He's also looking forward to the day when the parts department, service writers and technicians are linked into the same customer file, to speed turnaround and reduce customer waits.

In sales, Belen points to the various elements that have to come together in completing a deal – things such as credit applications, searching for lending rates, titling, and the like. Now, sales people and showroom managers are forced in most instances to handle these tasks one at a time. Why not combine all these elements, and the decision making and information gathering process, in a single screen? This type of "dashboard" view would go a long way to improving the customer experience – and freeing sales people up to do more selling. "What you may end up seeing in the near future is for the salesperson to see all that information in one screen," Belen says. "You're going to see a lot of information accessed with the touch of a button."

STAR Dealer Advisory Group

DeLyn Mitchell
Beaudry Motor Co.

Wes Lutz
Extreme Dodge

Owen Blevins
Mearig Kia

Mark Rush
Rush Lincoln-Mercury

James Druzbik
Group 1

Brian McBride
Bill McBride Chevrolet

Gail Chickersky
NuCar Connection

John Schomburg
Woodhouse Group

Jeff Abel
Miller Toyota

Tom Arden
Downs Ford

Jauna DuPratt
Ron DuPratt Ford

Dave Farguson
Center BMW

Here and Now

Exactly what kind of computer and software infrastructure is required for this exciting new "push button" retail IT world to happen? In many places, it's already in place.

STAR has developed an exhaustively detailed map to this new world. Its Dealership Infrastructure Guidelines, or DIG, explains the ins and outs of building a commonly-configured computer network for the retailer (available free online at www.starstandard.org). These guidelines and recommendations help dealers, often with the assistance of IT vendors, to decide which communications solution best fits the requirements of their business. Manufacturers, such as VW, are fast rewriting legacy applications (existing systems built on proprietary one-to-one links) to handle the new open systems that are primarily linked through the Internet. The dealership infrastructure, then, must be equipped to handle the growing array of Web-based applications.

STAR's infrastructure guidelines touch on all key elements of setting up a high-speed network in a dealership – hardware, security, multimedia delivery, DMS migration – even a new section on wireless technology. The guidelines are, in effect, a technology cookbook that greatly assists the dealer to prepare for the networked retail operation.

Mark Rush, of Rush Lincoln-Mercury, converted his store to a local-area network (LAN) four years ago at a cost of about $20,000. (A LAN is a group of computers and devices connected to form a network that is usually limited to a single building or group of buildings in a campus. The LAN should be connected to the Internet.) Rush's network offered what he described as a "commonality and accountability" for all of the personal computers in the store. He understands very well the hesitancy on the part of some dealers to shift to a network, because the technology considerations and cost questions can be intimidating. "Dealers want to sell cars and take care of customers," Rush says. "We don't want to be LAN administrators."

Another major benefit of the standardized data world is the richer menu of technology choices that it offers. For dealers, that means flexibility and bargaining power. Because of the typical technology cycle of lower prices for ever greater computing power, Rush is very careful to stick to short-term agreements. One example he cites: Lease prices for high-speed T1 lines, used to access the Internet, are literally 50 percent lower than they were three years ago. That's a clear benefit of competition. "I've been careful not to get locked into long-term contracts," Rush says. "And I would advise all dealers to do the same. Be as flexible as you can be."

Gail Chickersky, controller with NuCar Connection, a multi-franchise dealer in New Castle, Del., said the shift to a networked retail operation could simplify technology needs – once the requirements are clearly spelled out. Still, she is troubled by a tendency by some manufacturers to require redundant, proprietary links – even in the networked world. She sees manufacturers striking exclusive agreements in technology or in Web-based services. The dealer world, she points out, isn't a place where "cookie cutter" technology plans can be implemented across the board. The simplification of business processes is easier said than done.

2004-2005 STAR Member List

Dealer Groups

CCAQ
National Automobile Dealers Association

Retail System Providers

5Square Systems Corporation
ADP
Advent Resources, Inc.
AIAG
American Financial Services Association
Arkona
Autodata Solutions
AutoDESA
Auto/Mate, Inc.
Chrome Systems
Cyclone Commerce
DealerTrack
Motorcycle Industry Council
NAT, Inc.
NeoSynergy, LLC
OAGI
Oxlo Systems
PBS Financial Systems Inc.
PROCEDE Software
Quorum Information Systems
Reynolds & Reynolds
RouteOne
Sprint
Sun Microsystems
TIBCO
UCS
Unipart Automotive Logistics

Manufacturers

American Honda Motor Co., Inc.
American Suzuki Motor Corp.
BMW of North America, Inc.
DaimlerChrysler
Ford Motor Company
General Motors Corp.
Hyundai Motor America
Jaguar Cars
Kia Motors America, Inc.
Land Rover
Mazda North American Operations
Mitsubishi Motors North America, Inc.
Nissan North America, Inc
Porsche Cars North America, Inc.
Renault
Saab Cars USA
Subaru
Toyota Motor Sales, USA
Volkswagen of America

For her operation, Chickersky says the biggest challenge is understanding the technology. In large part, that's because NuCar's IT history has been limited to managing DMS and the varying requirements from factories and vendors, such as lending institutions. She expects more competition for the dealer's business from DMS providers but notes that their highly integrated systems will create their own barriers to entry for upstart vendors.

"I expect cost control, if not savings, as the STAR migration moves forward," Chickersky says. "Open standards should remove barriers to entry which have been related to our dealer-factory requirements."

Don Lindner, IT manager for Carter Motors, a VW-Saab-Subaru dealer in Seattle, also expects dealers to be more willing to switch DMS providers in an IT world based on STAR standards. Historically, he says, dealers have been reluctant to bet on a smaller vendor when making such a strategic change. And multi-franchise vendors, such as Carter, have a much more complex task when contemplating a switch. But that sentiment may be going away. "There are many that are starting to switch and go to more cost-effective DMS platforms," he said. "We would love to be able to do that."

Carter Motors, which launched its Web site in 1994, deals with a great many tech savvy car buyers, many of whom work in the local software and aerospace industries. For that reason, VW's move to a Web-based system based on STAR standards makes perfect sense to Lindner. "The main thing the Internet is going to provide is a vehicle to cut costs," he said.

Tom Arden, the partner at Downs Ford, is looking forward to the day when the retail IT technology becomes so efficient that retailers can spend more time doing what they were meant to do. "In this age of the Internet and new information technology, one thing has become very apparent to dealers – people still do the selling," Arden says. "We don't need fancy technology. We need quick and accurate information, at reasonable cost, that lets us spend more time in front of the customer and less time in front of our computers."

STAR
Standards for Technology in Automotive Retail
Making IT Work for You
www.starstandard.org

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