


WORLD COM

Digital Government Enterprises



**Vehicle
Electronic
Repair
Network
(VERN)**

VERN Executive Summary

VERN: *“A WorldCom e-commerce solution that uses the Internet to deliver vehicle diagnostic and repair information to service technicians and consumers”*

- ✓ Solution required by EPA and California
- ✓ Teaming alliance with Tier 1 parts manufacturer
- ✓ Potential market - 150,000 shops
- ✓ Value add for emission programs

Product Drivers

VERN: *Created to address the needs of independent technicians for information to repair complex emission failures.*

- ✓ Legislation
- ✓ Vehicle Complexity
- ✓ Service Information Issues
- ✓ Internet

Legislation

Clean Air Act Incorporates On-Board Diagnostic (OBDII) Emissions Testing

- ➡ OBDII technology - '96 and later vehicles
- ➡ Technicians need advanced education, training and repair information
- ➡ OBDII - emphasis on repair in “test and repair”
- ➡ **Big concern is service information:** Can the technicians effectively diagnose and repair emission failures?

Legislation

Independent Technician Access to Repair Information Has Federal and State Mandate

- Both EPA & CARB require OEMs to make available:
 - ✓ Diagnostic and repair procedures
 - ✓ TSBs, vehicle recall campaigns
 - ✓ Training programs
 - ✓ Design/operation of OBD system

- Information to understand data accessed by generic scan tools

- Access to information mandated via website

Vehicle Complexity

Technology will double every 2 years

➤ 42-Volt Electric Systems

Computer Area Network (CAN) Vehicles

Gasoline & Diesel Hybrids

Diesel & Low Sulfur Fuel

Fuel Cells

Wireless Communications

◆ Remote Diagnostics/"Smart" Databases

◆ "Intelligent" Vehicles on Intelligent Highway Systems

◆ Remote Data Collection

◆ Telematics

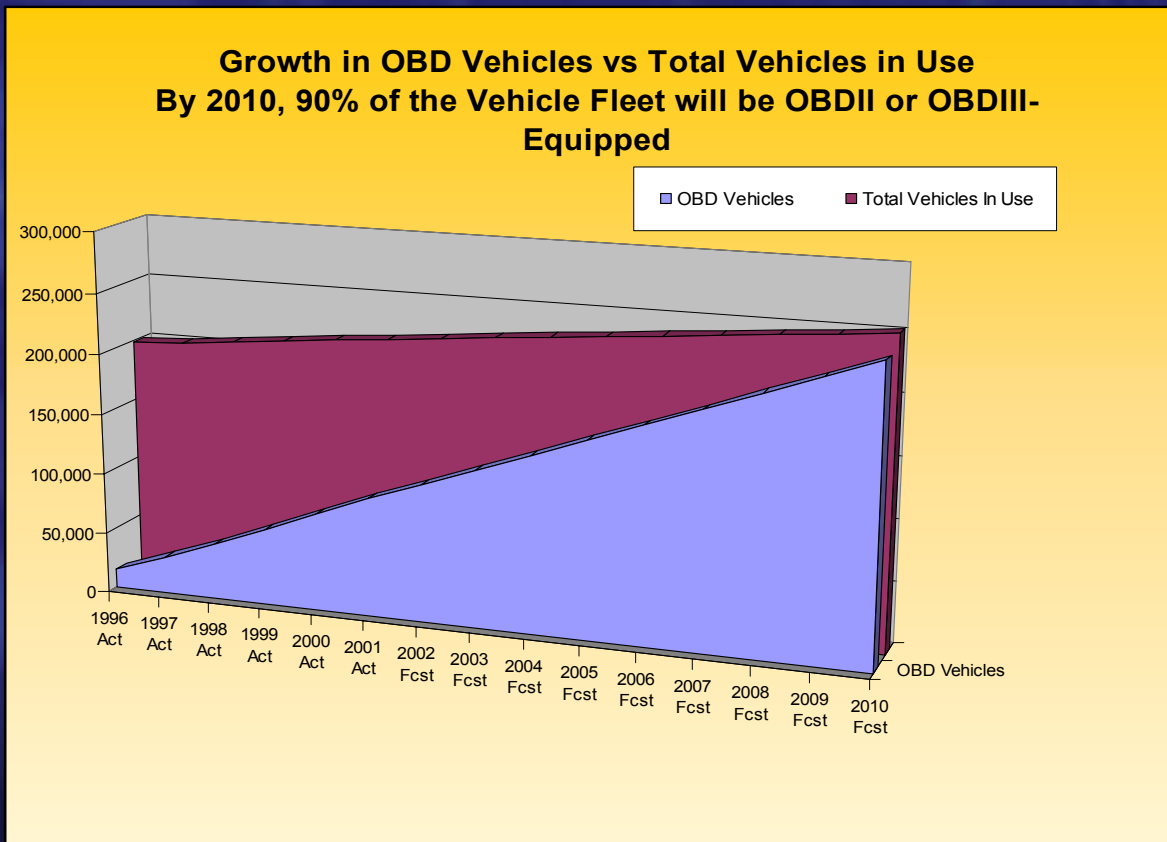
Vehicle Complexity

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Vehicle Complexity

Government regulation is forcing implementation of more sophisticated technology.



OBDII technology is changing emission testing.

By 2010, over 90% of the vehicle fleet will be OBDII or OBDIII-equipped.

Service Information Issues

Technicians Do Not Have All the Service Information Readily Available to Them

- ➡ Current information is expensive and slow to deliver most up-to-date information
- ➡ Service Information is not always complete or accurate due to “massaging of data” by vendors
- ➡ Cost of service information is a major factor

Service Information Issues

Service and Repair Information from Traditional Suppliers

Aftermarket Paper Manuals

- Need large number (200+ manuals; 500,000+ pages)
- Expensive to acquire (\$100+ each)
- 12-18 months to update
- All manuals won't provide complete coverage

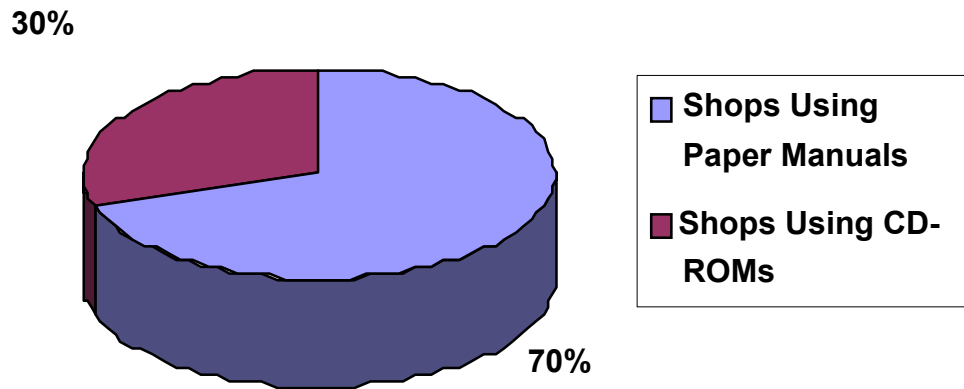
Aftermarket CD-ROMs

- Difficult to use
- Expensive (\$2,000-\$3,500 per year)
- AllData and Mitchell are the only choices today

Service Information Usage

The Service Repair Industry Requires Access to Service Information to Diagnose and Repair Vehicles

Resources for Repair Data



Today's diagnostic, service and repair information is limited by the format of the product.

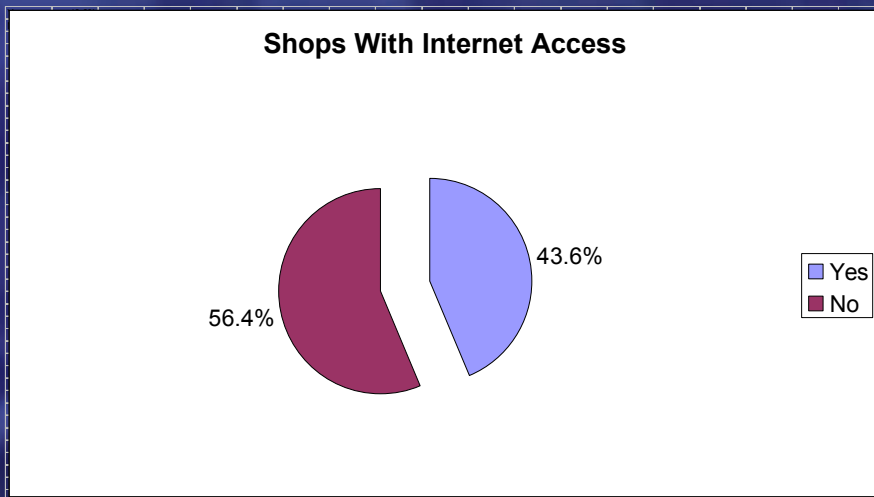
Service Information Issues

Access to Current, Complete Service Information from Original Equipment Manufacturers (OEMs) is Vital to Independent Technicians

- Historically, obtaining OEM Service Information is a major issue for independents
- OEMs considered their data proprietary
- Information was mainly provided to the OEMs' dealerships

Shops with Internet Access

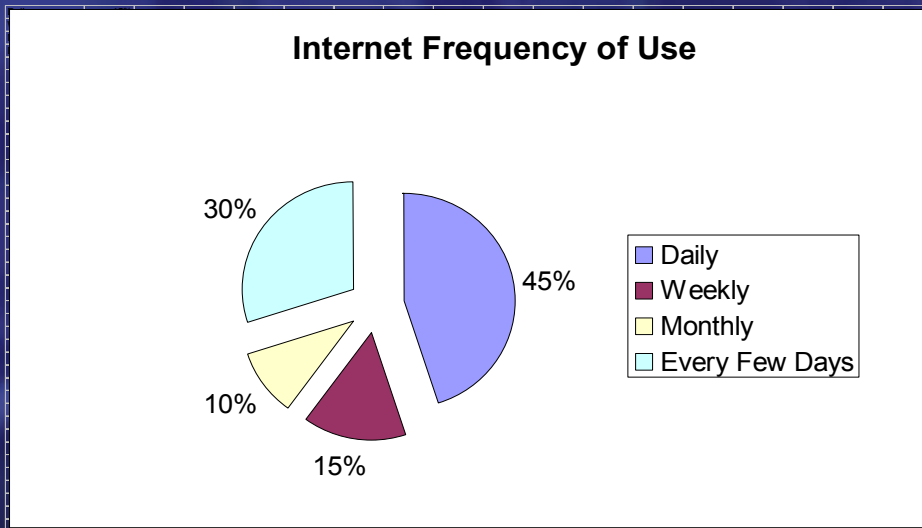
The Internet is Becoming an Important Business Tool



Over 43% of Motor Shops have Internet Access in their Shop

Internet Frequency Of Use

The Internet is Increasingly Important as a Source of Service Information.



Almost Half of the Shops with Internet Access, Use the Internet daily.

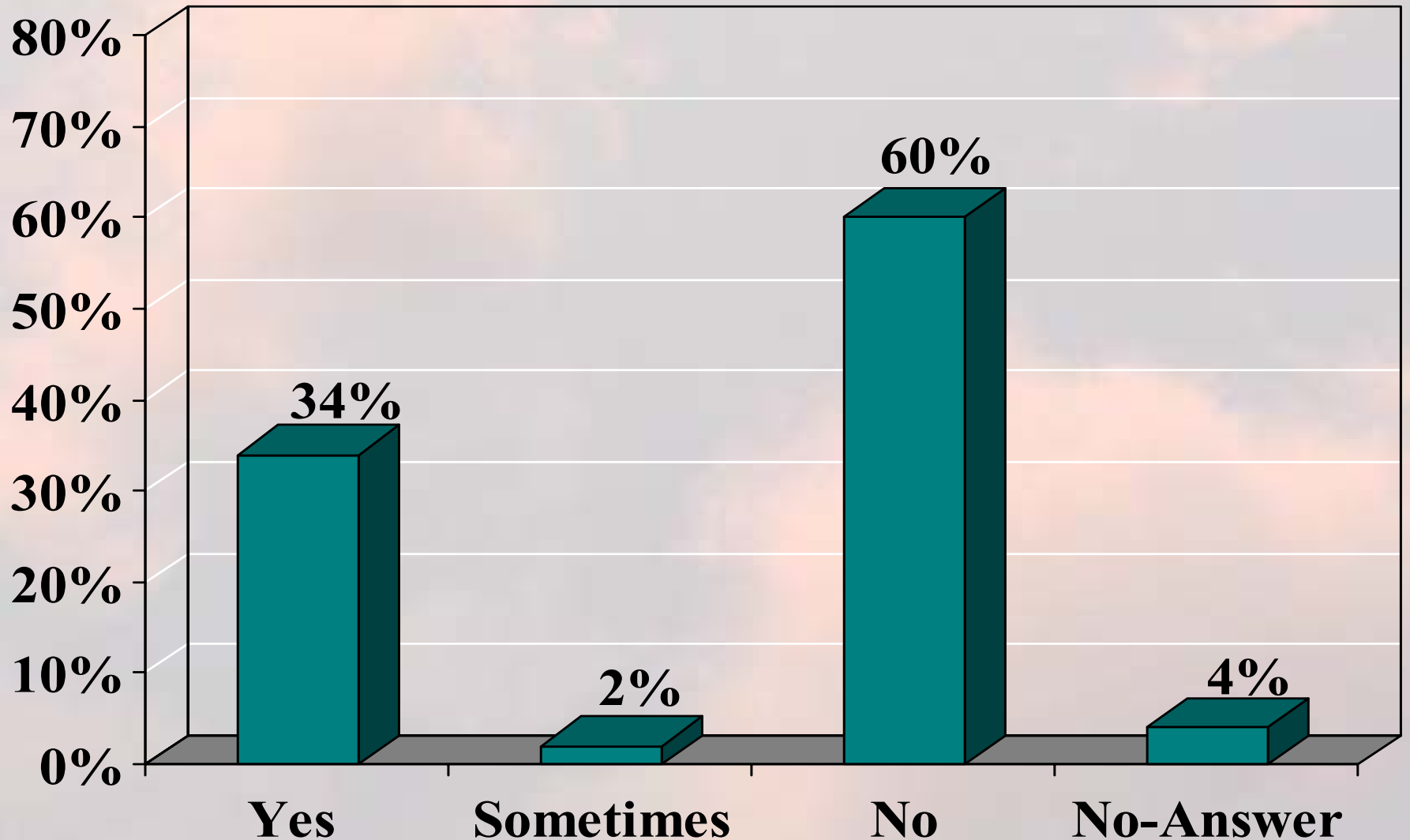
The #1 Use of the Internet is to "Access Technical Information" (Motor Magazine)

Use of the Internet in the Independent Shop

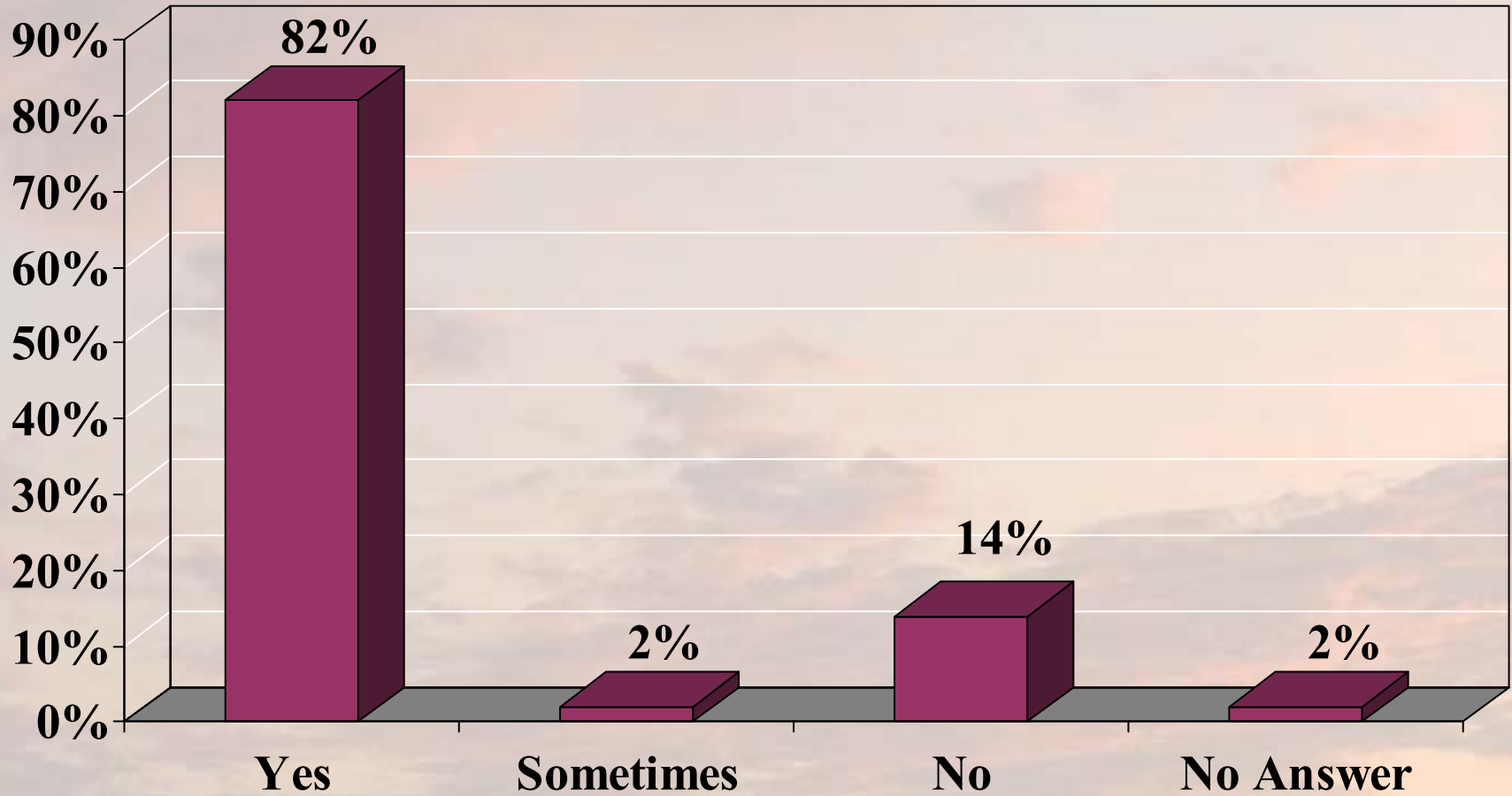
Technicians are Ready to Access Repair Information over the Internet

- ➡ In April, 2001, State of Oregon Department of Environmental Quality surveyed 350 repair facilities in Portland Metro area.

Do you use the Internet to help diagnose problem vehicles?



Would you use the Internet more often if you had consistent access to manufacturer information on demand?



Market Need

VERN Addresses Immediate Needs of All Stakeholders

- **Technicians** - need detailed repair information beyond just failed emissions tests. The number of annual Driveability/Emissions jobs is up 38% since 1997, due mainly to increased complexity of vehicles.
- **Program Administrator** - What “tools” will you offer the repair industry to use to repair vehicles?
- **Motorists** - If their vehicle fails, they want their repairs done quickly and inexpensively and do not want unnecessary repairs

Automotive Service Market Overview

Independent Technicians Service the Majority of Vehicles in the US

👉 Independent technicians = 75% of repairs (ASA, July, 2001)

👉 Registered Vehicles in US

◆ 1980 - 130,000,000

◆ 2000 - 205,000,000

👉 1998 - 2001

◆ New Car Dealers - 0.9%

◆ General Repair Shops (Independents) +2.3%

Initial Product Content

VERN: A “One-Stop” Shopping Website

- ✓ Complete, accurate, updated OEM information
- ✓ Aftermarket repair data
- ✓ Order OEM products
- ✓ Scan tool software updates
- ✓ Logic-based diagnostic/repair tool
- ✓ Technical Hotline
- ✓ OEM/3rd Party Technical Training
- ✓ Program Training
- ✓ Customer Support

Service Information Solution

Web-Enabled
Service
Product

+

Government
Mandates

+

WorldCom
Network

+

WorldCom
Expertise and
Installed Base

=

WorldCom is
uniquely
positioned to
offer a web-
enabled, internet
based e-
commerce
Service
Information
Solution

VERN


WORLD.COM

Teaming Partner(s)

Teaming Partner is An Established Player

- ➡ Tier 1 automotive parts suppliers
- ➡ Vision: “Provide automotive service technicians with quick and easy-to-use diagnostic and service processes that decrease returns, make jobs easier and increase customer satisfaction.”

VERN Demo