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Biometrics Market: Trends, Opportunities, Issues

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Emerging Market Analysis

- Segmentation Models
- Opportunity Sizing
- Technology Evolution
- Competitive Environment
- Target Profiling
- Niche Penetration Strategy
- Solution Effectiveness
- Positioning

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Biometrics Market: Trends, Opportunities, Issues

- Biometrics Basics
- State of The Industry
- Benefits of Biometrics
- Market Drivers
- Case Studies
- Deployment Issues
- Strategies For Success
- Biometrics Today ..
- ...And in The Near Future

Biometrics Basics

What are Biometrics?

Measurements of physical or biological characteristics of an individual to create a unique identifier which can be electronically stored, retrieved, and compared for positive identification purposes.

Biometrics Basics



☞ Finger



☞ Iris

☞ Hand



☞ Face

☞ Voice



☞ Signature

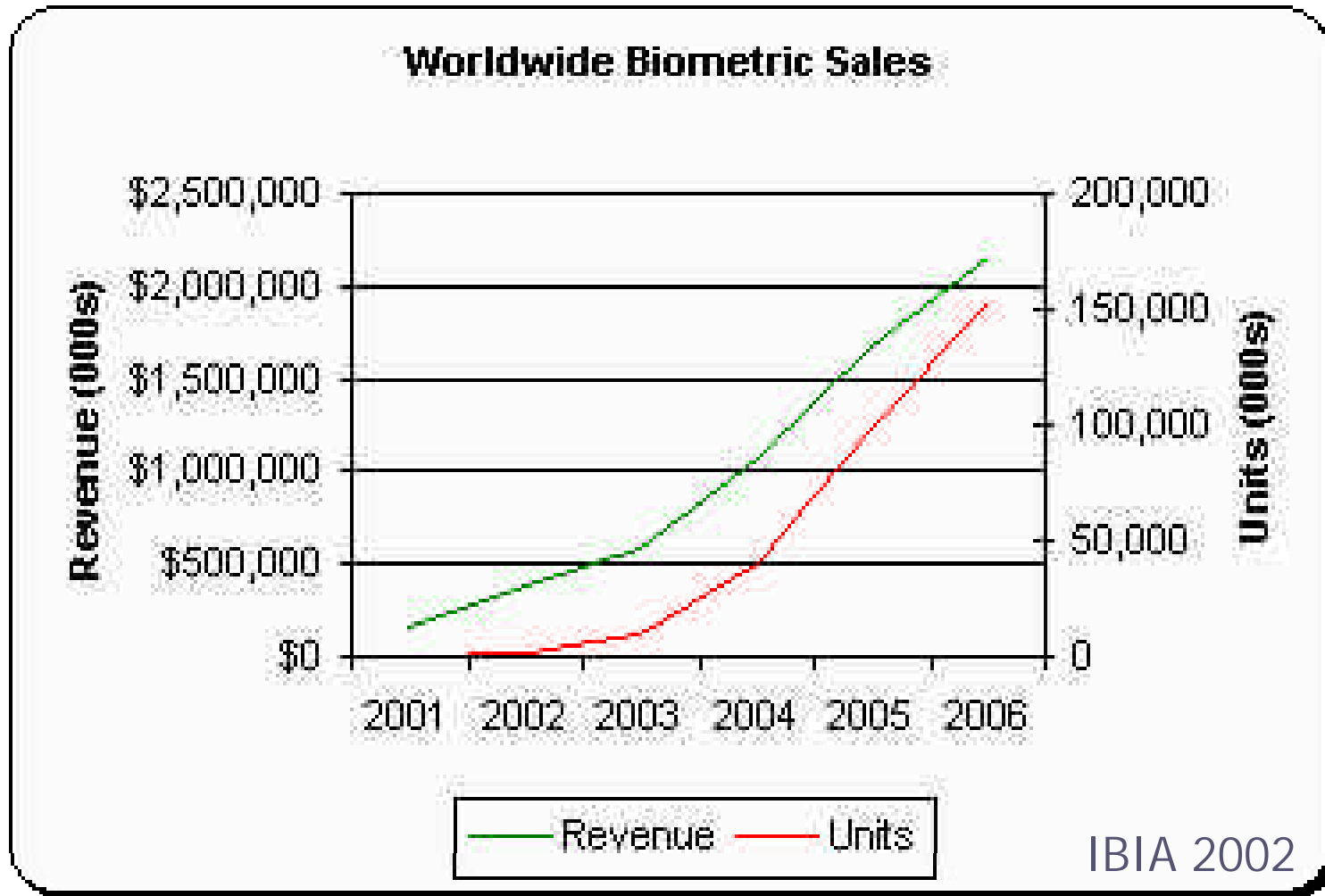
☞ Keystroke



**For More Information:
homepage.ntlworld.com/avanti**

State of The Industry

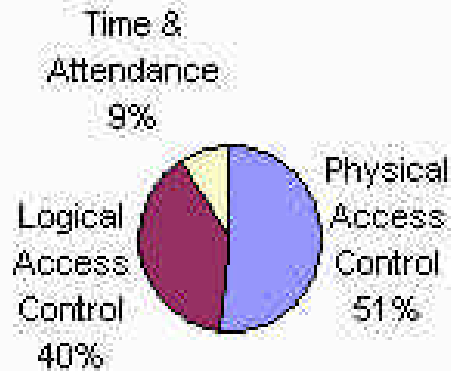
Market Size



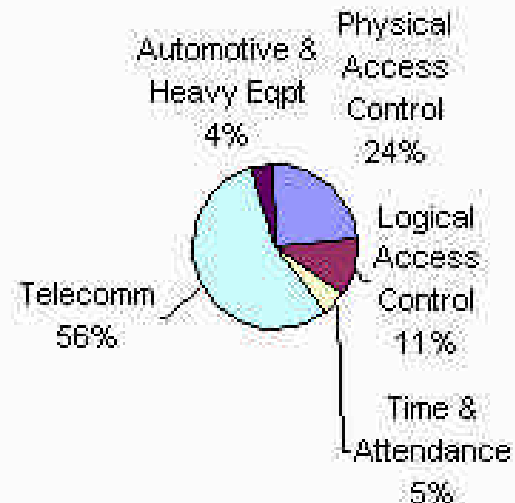
State of The Industry

Market Size

2001 Market Share by Category

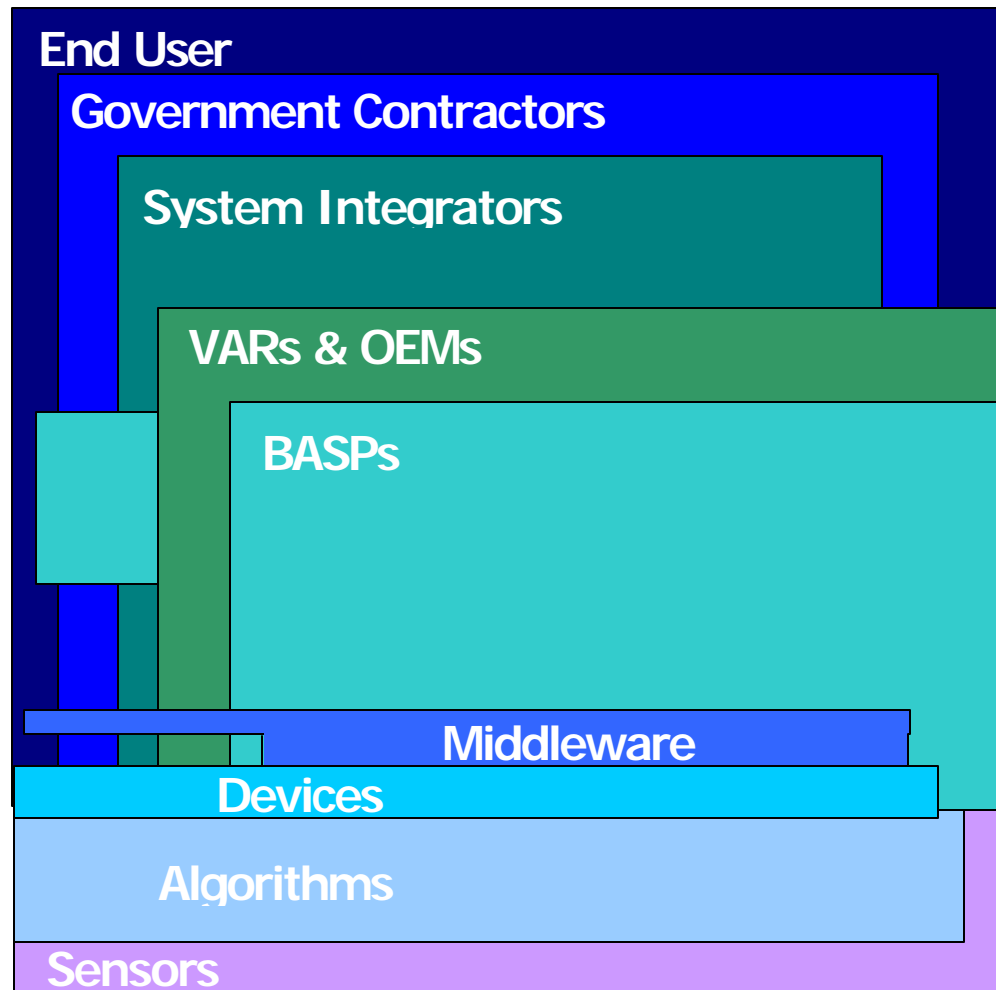


2006 Market Share by Category



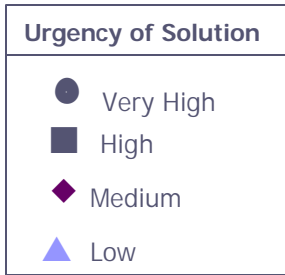
IBIA 2002

State of The Industry *Players*



State of The Industry

Vertical Segmentation



	Government Administration	Law Enforcement	Aerospace & Defense	Financial & Insurance	Healthcare	Hospitality	Public Facilities	Travel & Transportation	Shipping & Warehousing	Energy, Utilities & Waste	Chemicals, Petroleum & Plastics	Pharmaceutical & Biotech	Agriculture & Food	Education	High Technology & Telecom	Other Manufacturing	Commercial Property	Retail	Automotive	Consumer Electronics	Residential
Physical Access	●	●	●	●	■	■	●	●	●	●	●	●	■	■	■	■	◆	▲	▲	▲	
Logical Access																					
Secure Data personal, corporate, public	●	●	●	●	●	■	■	●	●	●	●	●	■	●	■	■	◆	◆	◆	◆	
Financial Transactions POS, ATM, e-commerce, gov't disbursements	■	◆	◆	■	●	◆	◆	■	■	■	●	■	■	◆	◆	■	●	■	▲	■	◆
Identity Confirmation																					
Voter, Benefits, DMV, Drivers License background check	●	●	●	■	■	■	■	●	■	■	■	■	■	◆	◆	◆	■	▲	▲	▲	-
Time & Attendance																					
	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	▲	◆	◆	▲	◆	▲	▲	-	
Surveillance																					
public & private	●	●	■	■	■	◆	●	●	■	●	●	●	■	◆	◆	■	■	▲	▲	▲	

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Benefits of Biometrics

☞ Reduced Costs

- Pin/Password Maintenance
- Eliminate Buddy Punching
- Reduces Paperwork

☞ Increase Security

- NO Shared or Compromised Passwords/Pins/Badges
- Provides Audit Trail
- Prevents Impersonation – Reducing Fraud, Identity Theft

☞ Convenience and Control

- Faster Login
- No Password/Pin to remember or reset
- Control Access to Confidential Information

☞ Accountability/Non-Repudiation

- Link to Identity Not Possession or Knowledge “something you are, not have or know”

Market Drivers

- ☞ Post 911 Security Frenzy
- ☞ Price/Performance Curves Dropping
- ☞ Accuracy/Reliability Improving
- ☞ End User Awareness/Acceptance Increasing
- ☞ Proven Deployments
- ☞ **Shift From Technology to Integrated Solutions**
- ☞ Government Programs – CAC, TWIC
- ☞ Legislation/Regulation – HIPPA, GRAMM-LEACHY, Electronic Signature, Border Security, PATRIOT
- ☞ Corporate PC Replacement
 - 42% 24-35 months old 25% 36-47 months old**

Case Studies - Transportation

Organization/Location	Application	Biometric	Status
Ben Gurion Airport	Identity Confirmation - Immigration Trusted Traveler	Hand	Deployed
Schiphol Airport	Identity Confirmation - Immigration Trusted Traveler	Iris	Deployed
St. Petersburg - Clearwater Airport	Cooperative Surveillance	Face	Deployed
O'Hare Airport & ATA	Logical Access - Electronic Supply Chain Manifest	Finger	Testing
Union Pacific Railroad	Logical Access - Rail Car release	Voice	Deployed
Canadian National Railways	Physical Access - Outside Suppliers	Finger	Deployed
Rotterdam Seaport	Physical Access - Outside Suppliers	Hand	Deployed
Schiphol Airport	Physical Access - Employees	Iris	Planned
DOTs TWIC	Employee Physical Access	Finger & Face	Planning
IATA, Visa,	Identity Confirmation - Immigration Trusted Traveler	Considering	Concept

Case Studies

Organizations	Application	Biometric	Market
Casinos	Surveillance - Non Cooperative	Face	Hospitality
Thrift Way, Kroegers, McDonalds	Logical Access - POS	Finger	Retail
Clinical Drug Trials	Logical Access - Researchers	Signature	Pharmaceutical
First Tennessee Bank	Physical Access - Customer Vault	Hand	Financial Services
American Express	Physical Access - Employees	Finger	Financial Services
Pennsylvania Public Schools	Logical Access - POS: School Lunch Program	Finger	Education
Disneyworld	Physical Access - Season Pass Holders	Two Fingers	Entertainment
Fidelity	Logical Access - SSO	finger	Financial Services
Asia, Europe, Africa, S. America	Identity Confirmation - Citizen ID	finger	Government

Deployment Issues

- ☞ Define Total Problem
- ☞ *Value Appropriate* Solutions
- ☞ User Base Considerations
 - ◆ Size, Characteristics, Acceptance
- ☞ Test, Pilot, Deploy
- ☞ Enrollment & Education
- ☞ Environment
- ☞ User Support
- ☞ ID Management
- ☞ Interoperability & Scalability
- ☞ Database Management, Control
- ☞ Privacy Concerns

Strategies for Success

- Vertical Focus
- Identify and Target Niches
- Solutions Oriented – Whole Product
- Partnerships & Alliances for Expertise
- Start With Small <50K, Constrained, Closed Loop Applications
- Leverage Niche Successes into BIGGER Wins

Biometrics Today...

- ☞ Transition - High Security to Regulated Industry & Commercial Solutions
- ☞ Small Closed Loop Applications
 - ◆ Well constrained
 - ◆ Less than 50,000 users
- ☞ Government Public Safety Initiatives Slow Going
- ☞ Security Perceived Driver BUT Process Improvement & Operational Efficiency DRIVE ADOPTION

... And in the Near Future

- ☞ Ubiquitous Use in Commercial Enterprise
 - ◆ Physical & Logical Access, Identity Confirmation, Time & Attendance
- ☞ Large Scale Systems “Public Safety”
 - ◆ Transportation, Immigration & Border Control, Citizen Identification
- ☞ Integrated Account Management & Transactions
 - ◆ Financial Services, Telecom, Retail
- ☞ Legislative & Regulatory Control to Protect Privacy
- ☞ Value Proposition and ROI Main Drivers



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