



# From James Bond to the Boardroom

“Bringing In Biometrics”  
Fidelity Biometric Steering Committee

September 2002

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# Introduction

In this presentation I will be giving you an overview of how we organized our Steering Committee to help make biometric projects feasible at Fidelity Investments.

I need to state at the beginning that at no time will I be able to discuss which vendors we are currently piloting, I will however refer to the technologies in a generic way. All of our vendors are under strict Non-Disclosure Agreements with us and as such you will not see Fidelity Investments' name or logo used by any of our vendors in their presentations.

# Agenda

- Who we are
- End Customer
- Membership
- Charter
- Update 2001
- Vendor & Industry Relations
- Privacy
- The Challenges
- Current Projects & Issues
- Conclusions

# Who We Are



Fidelity Investments is one of the world's largest providers of financial services with custodied assets of \$1.5 trillion, including managed assets of about \$900 billion. Fidelity offers investment management, retirement, brokerage and shareholder services to 17 million individuals and institutions as well as through 5,500 financial intermediaries. The firm is the largest mutual fund company in the United States, the No. 1 provider of workplace retirement savings plans, one of the largest mutual fund supermarkets and a leading online brokerage firm. Fidelity Investments' Web site is at [www.fidelity.com](http://www.fidelity.com).

# End Customer



Realizing that the end user can make or break your biometric security project is the key to success.

What are their concerns? Have they been properly addressed? How well are they educated in how biometrics work?

# Membership in FBSC

- Desktop Operations
- Human Resources
- Legal Department/ Government Affairs
  - Employee Law
  - International Law
  - ADA (Americans with Disabilities Act)
- Corporate Privacy Dept.
- Business Users
  - Retail, Institutional, International (Canada, Ireland, Japan, UK)
- Fidelity Center for Applied Technologies (FCAT) R & D
- Fidelity Ventures
- Corporate Security – physical access and building security



# Charter

- Review general topics and technologies
  - Standards
    - CBEFF
    - BioAPI vs. BAPI
    - X9.84
    - XML Oasis XCBF
  - Product test results
  - Maintain central depository of biometric information
  - Provide a discussion forum on biometric projects
  - Provide a One Fidelity biometric roll-out strategy
  - Provide insight into the biometric vendors and their technologies





## Fidelity Biometrics Steering Committee and FCAT R&D present:

### Biometrics 2001 Update

Thursday November 8, 2001 9:00 a.m. - 12:00 p.m.

Since FCAT debuted biometrics in 1998, the technology has matured and its potential for protecting consumer and corporate assets has become more compelling. The **Biometrics 2001 Update** symposium discusses

- where biometrics is being used for Fidelity employees and customers, and
- explores some of the legal and privacy issues that are shaping business policies.

The program features a keynote address by Samir Nanavati, a biometrics industry expert and partner at International Biometric Group, and several Fidelity specialists who are studying and implementing biometric solutions.

# Vendor & Industry Relations

- Know who their competitors are and their products
- Financials
- EER
- **NIST** Biometric Working Group
- **FSTC** – Biometric Special Interest Group
- **IBG** Biometric Testing



# Privacy: “Taming the Dragon”

- Ybor City (Tampa, FL)
  - Super Bowl (Tampa, FL)
  - Disney World yearly passholders
- 
- Opt-in vs. Opt-out vs. Mandatory
  - Clarity around purpose/use of biometric image/print



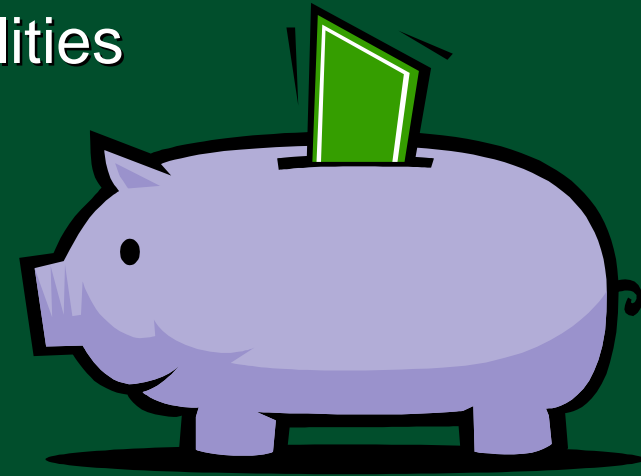
# The Challenges

- Move away from SSN as base identifier
- Work with proprietary & commercial applications & product integration
- Provide next-generation product requirements
- Leverage existing infrastructure and re-use templates to reduce costs
- UNIX back-end environment
- 300+ unique building environments
- Over 30,000 employees
- Legal issues are locality based, corporation is U.S. based
- B2B XML Infrastructure
- Privacy



# Real Costs Vs. “Fictional”

- PIN's are 8-31bytes
- Templates are 2k to 20k
- Template transference over the WAN/LAN @ \$1 meg
- Storage & replication over redundant facilities
- Updates to templates (adaptation)
- Device replacement & integration
- Identification vs. Authentication
- Password Reset Costs around \$50-300 user



“That all is not Gold that Glitters, and Two and Two make Four” -- Rudyard Kipling

# Current Projects & Issues

- **Biometric Single Sign-On**
  - Device selection
    - Fingerprint scanner
    - Facial being tested on laptops
  - Remote Access / Disconnected Logon
  - NT, Novell & Proprietary software
  - Mobile Devices : PocketPC
  - Two factor authentication possible
  - Use Core from AFIS based Digital imaging



# Current Projects & Issues #2

- **PIN resets with voiceprints**
  - Channels - Security
  - Redundancy
  - Failover/Failback to multiple locations
  - Voiceprint size over network
  - Read vs. Write (PIN vs. Online Adaptation)
  - Integration with Speech Recognition systems



# Current Projects & Issues #3

- **Physical Access Security**
  - Fingerprint
  - Facial Recognition - @10-20% FRR
    - Lighting concerns -Time of Day (before/after hours)
    - Skin tone of employees – some could not enroll or be verified ever
    - Employees with Glasses had much higher rates of FRR
  - Integration into current environment



# Current Projects & Issues #4

- **Automated Deposit Machines (Check Kiosks)**
  - Fingerprint
    - Using technology from SSO project
  - Enrollment issues
    - Opportunity for initial customer service interaction with Customer
  - Verification is 1:1
  - Used for PIN, not identity at this time



# Conclusions

After organizing our committee we found that the issues were brought to the forefront by those on the committee after they were appropriately educated in the systems. Working together across units we were able to set the right course for Fidelity Investments.

