



INFORMATION SECURITY IN A GLOBAL BANK

Secure Communication in the New Millennium

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OVERVIEW

◆ Today

- Legacies, Geography, Cultures & Constraints
- Resulting Situation
- Forces For Change

◆ The Target

- Customer Requirements
- Technology and the Workforce
- Communications, Networks and Connectivity
- Planning

◆ Tomorrow

- Evolution Plus Revolution
- Make or Buy?

◆ Summary



TODAY



◆ Legacies

- Mainframe Attitudes Toward Security
- Client-Server Explosion
- Regional Autonomy
- Regional Optimization

◆ Geography

- Business In 61 Countries
- Most Time Zones
- 24 X 6 Usage Of Distributed Assets

TODAY



◆ Cultures

- Origin: Swiss Base, With Strong Non-Swiss Offices
- Then: O'Connor, S.G. Warburg, Dillon Read, . . .
- Culture Is Multi-culture

◆ Constraints

- Customer Expectations & Image
- Legal & Compliance Requirements In All Countries
- Competitive Position
- Sufficiently Secure

TODAY - RESULTING SITUATION

- ◆ **11 Different Host/Server Operating Environments**
- ◆ **118,000 Nodes** (WSs, Servers, M/Fs, Firewalls, Routers, PTRs, etc.)
- ◆ **Over 200 Wan Links Spanning 32 Countries,
Dial Connect To The Remaining 29**
- ◆ **Defending The Castle - Firewalls & Hardware Encryptors**
 - Inside vs Outside
- ◆ **IT Security Practices Are Mix Of Old And New**

TODAY - FORCES FOR CHANGE

- ◆ **Threat - Increased Capabilities At Lower Skill Levels**
 - ✦ Internal, External, Consortiums and Individuals

- ◆ **Driving Compute Power Down Into Organization Requires Driving Security Down Into Organization**
 - ✦ IT Security's Value Added?
 - ✦ Information Ownership and Responsibility

- ◆ **Internal And External Demand For Secure Remote Connectivity**
 - ✦ Bank Systems, Intranet, Internet
 - ✦ Customers, Employees & Vendors
 - ✦ E-Commerce, Travel, Work at Home

- ◆ **Need For Rapid Expansion and/or Reconfiguration**
 - ✦ Business Opportunities
 - ✦ Mergers, Acquisitions and Joint Ventures



THE TARGET - CUSTOMER REQUIREMENTS

- ◆ **Complete Security**
 - Swiss Bank In All Locations
- ◆ **Simple, Easy Connections**
 - Easy For Customer, Easy For The Bank
- ◆ **No Limit On Functionality**
 - Whatever The Customer Wants Within The Law
- ◆ **Rapid Response & Total Support**
- ◆ **COMPETITIVE PRICING**

THE TARGET - TECHNOLOGY & WORKFORCE



- ◆ **Technology Moving At Awesome Speed**
 - Adds Threats, as well as Functionality and Efficiency
 - Well Planned Leap-frogging

- ◆ **Workforce Wants Improved Quality Of Life**
 - Flexible Hours
 - Work At Home
 - Mobile Connectivity
 - Less Travel, More Video, Audio Conferences

THE TARGET - COMMUNICATION, NETWORKS AND CONNECTIVITY

◆ Virtual Network

- Packet Loading Dock With Real-time Pricing?
- Optimum Use Of All Transit Alternatives
 - ◆ Dedicated, On-Demand, Internet, DSL, . . .
- Carrier Independence, Bandwidth On Demand

◆ Authentication And Application Level Encryption

- System Manages Cross-border Data Restrictions, Encryption Restrictions, Access Rights
- Secure ID Cards, SmartCards, GPS, & Global Security Servers
- Regional Entry Points Into “System”
- Handles All User Classes The Same Way (“Single Sign-on”)
 - ◆ Employees, Customers, Vendors

◆ Global Policies And Practices

THE TARGET - PLANNING

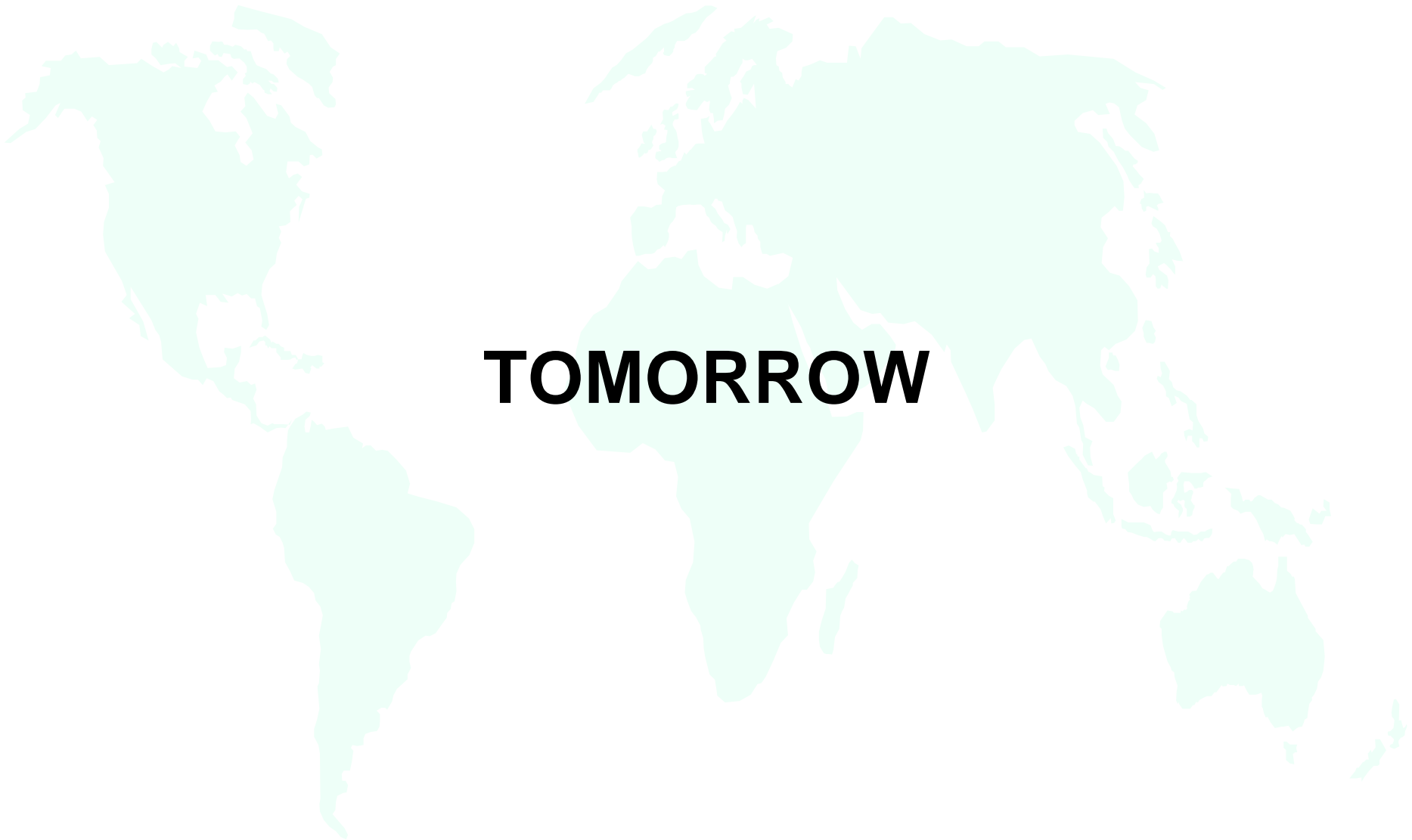


◆ How Do We Plan?

- Consider The Worst
 - ✦ “Discuss” Contingencies
- Plan For The Difficult
- Hope For The Best
- Keep Options Open

◆ Define The Target And Revisit It Often

- Changing Technology
- Changing Business Demands
- Changing Market
- Changing And Growing Organization



TOMORROW - EVOLUTION PLUS REVOLUTION

- ◆ **Incremental Changes To Meet The Immediate Needs Of The Businesses And The Evolving Environment**
- ◆ **Revolutionary Changes To Get To The New Level Of Functionality**
- ◆ **Constant Vigilance To Keep The Two In Sync**
- ◆ **Resources Sufficient To Keep The Progress Slope Positive**

TOMORROW - MAKE OR BUY?

- ◆ **Commercial Off-the-shelf Products From Vendors That Are Well Positioned**
- ◆ **Work With Vendors To Get The Products We Need Into Commercial Market**
- ◆ **Minimal In-house Development To Minimize Support Costs**
- ◆ **Concentrate on System Integration and Required Functionality**
- ◆ **Buy the Lock, Door and Installation, but Keep the Keys**
 - Sufficient In-House Expertise To Certify Security

SUMMARY

- ◆ **IT Security Focus on Value-Added Activities**
- ◆ **Compute Power and Security Accountability Must Stay Together**
- ◆ **Apply Advanced Technology to IT Security Functions**
 - Virtual Network, Carrier Independence, Seamless Linkages
 - Globally Integrated Regions Providing Security Control
 - Robust Authentication & Application Level Encryption
 - System Manages Cross-Border and Access Levels
- ◆ ***“What A Long Strange Trip It Will Be!”***