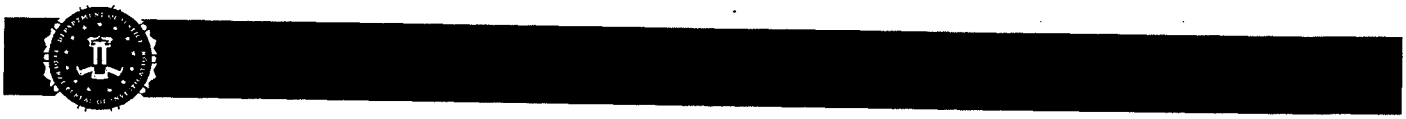
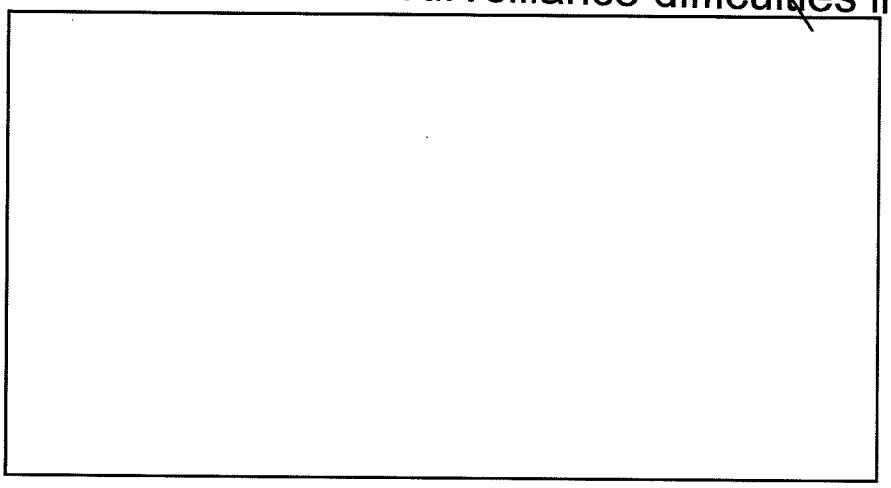
NATIONAL LAWFUL INTERCEPT STRATEGY
Current and Future Challenges

Operational Technology Division



LAWFUL INTERCEPT CAPABILITIES ARE ERODING AND AT RISK OF GOING DARK

- Existing trends indicate the FBI will have substantial and wide spread electronic surveillance difficulties in 2 to 3 years



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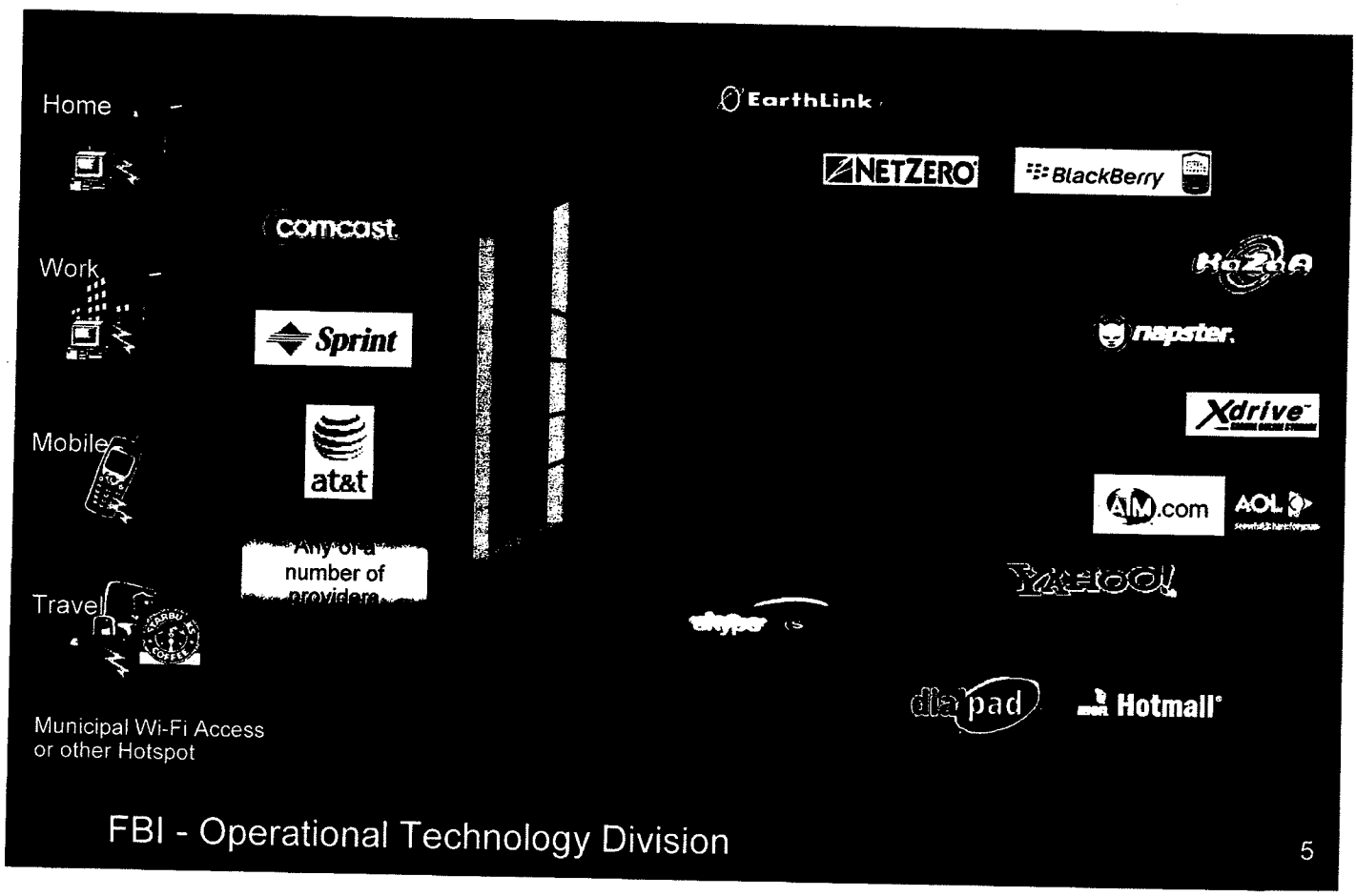
- Stable communication environment from time telephone invented in 1876 until 1983 - Alexander Graham Bell

MULTIPLE ACCESS METHODS TO A VARIETY OF SERVICES



ALWAYS ON, ALWAYS CONNECTED, ALWAYS MOVING
WIRELESS SERVICES / CAPABILITIES

at&t

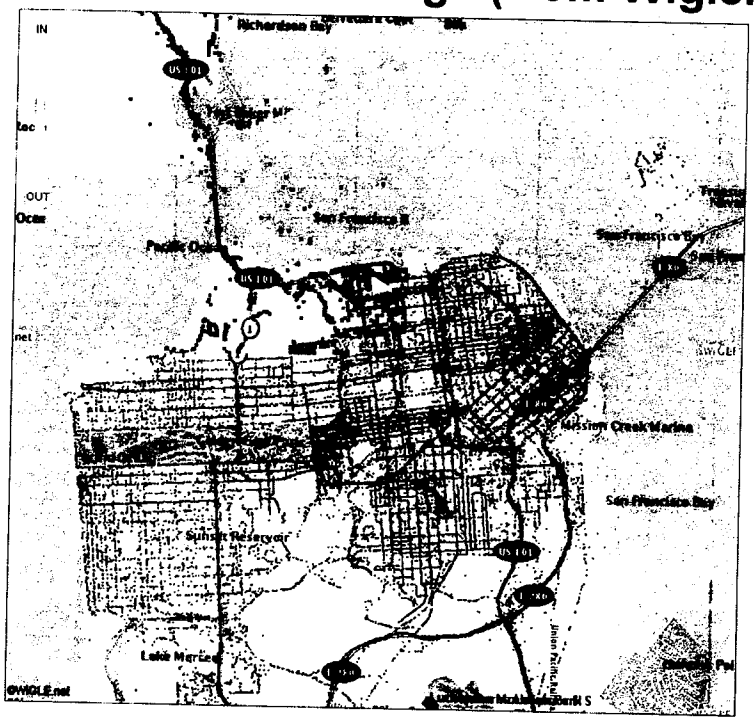
	iPhone	Cingular 8525	Blackberry Curve	Samsung Blackjack
				
2.5G (GPRS)				
3G (UMTS)				
Wi-Fi				
Bluetooth				
GPS				
3rd Party Applications				
Camera				
Keyboard				
Touch Screen				
Price (with contract)	$499.99	$299.99	$199.99	$99.99

··T··Mobile·

	T Mobile			
	Blackberry 8800	Sidekick 3	Blackberry Pearl	Dash
				
2.5G (GPRS)	T	T	T	T
3G (UMTS)				
Wi-Fi				T
Bluetooth	T	T	T	T
GPS	T			
3rd Party Applications	T	T	T	T
Camera		T	T	T
Keyboard	T	T	T	T
Touch Screen				
Price (with contract)	$349.99	$199.99	$149.99	$149.99

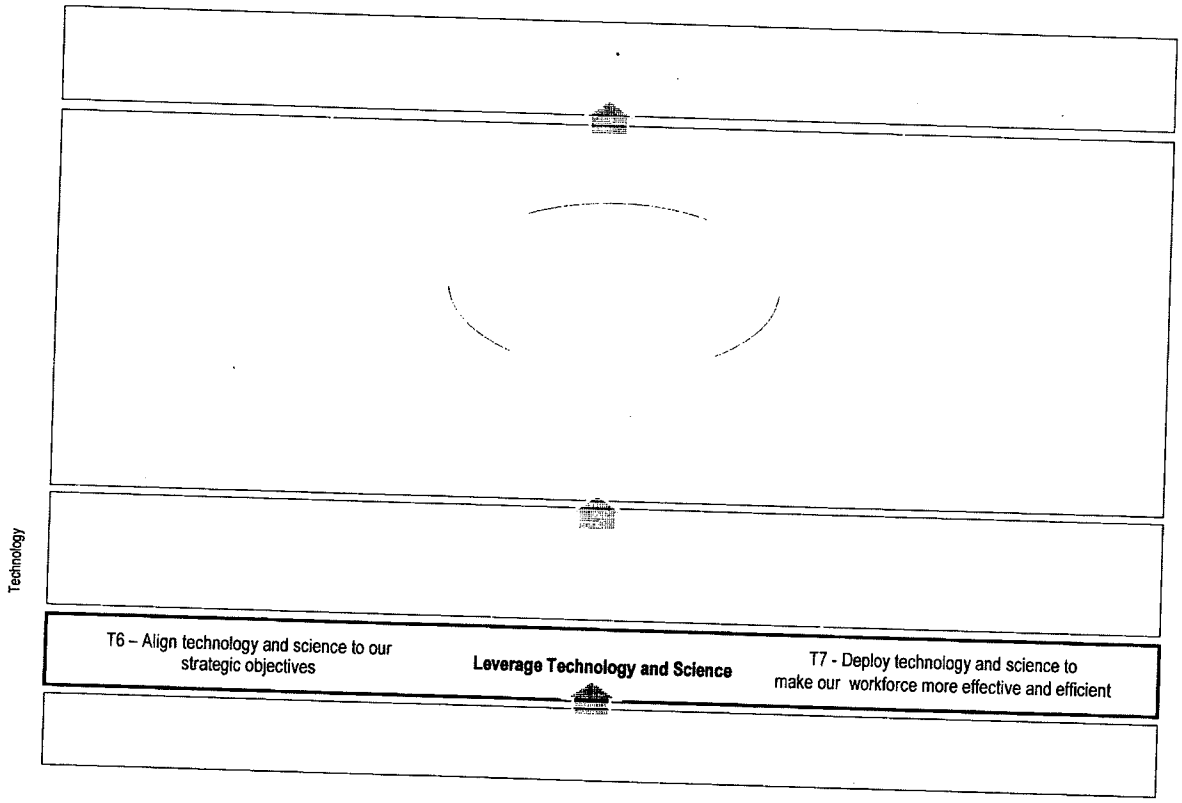
WI-FI OVERVIEW

San Francisco Coverage (from Wigle.net)



A BLETCHLEY PARK APPROACH TO THE PROBLEM

ELECTRONIC SURVEILLANCE IS A FOUNDATION OF THE FBI'S STRATEGIC FRAMEWORK



BACKUP MATERIAL

NATIONAL LAWFUL INTERCEPT STRATEGY

- Enhanced cooperation between law enforcement and industry
- Enhanced cooperation and coordination across the law enforcement community (National Lawful Intercept Coordination Center)
- Updated authorities (Protection of sensitive/proprietary information from industry etc.)
- Update legal mandates (CALEA etc.)
- Adequate resources and infrastructure for the law enforcement community

NATIONAL LAWFUL INTERCEPT STRATEGY
Current and Future Challenges

Operational Technology Division

COMMUNICATIONS ASSISTANCE FOR LAW ENFORCEMENT ACT (CALEA)

ITSG Workshop

Section Chief Michael P. Clifford, Jr.
Electronic Surveillance Technology Section
Federal Bureau of Investigation

April 21, 2004

AGENDA

Electronic Surveillance Background

CALEA Background and Progress

Regulatory Uncertainty and the Petition

Need for Standardized Solutions

DEFINITION OF ELECTRONIC SURVEILLANCE

A law enforcement tool whereby officers acting pursuant to lawful authority are permitted to use a device to overhear and record conversations or other transfers of information

Examples include wiretaps, acquisition of information about calls (pen register / trap and trace devices), microphones, and closed circuit television

HISTORICAL PERSPECTIVE

Fourth Amendment
- Unreasonable searches and seizures
- Probable cause
- Particularly describing the place to be searched

1914 - *Weeks vs. U.S.*
- Exclusionary rule

1928 - *Olmstead vs. U.S.*
- "Trespass" view

1934 - Federal Communications Act § 605
- Did not properly regulate
- Did not provide for a method of using information in court

HISTORICAL PERSPECTIVE (cont'd)

1967 - *Berger vs. New York*

- Probable cause
- Particular description (communications seized and phone line)
- Time limit

1967 - *Katz vs. U.S.*

- Katz overturned Olmstead

1968 - Omnibus Crime Control & Safe Streets Act ("Title III")

- Federal wiretap statute

1970 - Amendment to Title III

- Service providers must supply all technical information, facilities, and assistance necessary

HISTORICAL PERSPECTIVE (cont'd)

1977 - *U.S. vs. New York Telephone*

- "Any assistance necessary to accomplish an electronic interception"
- No obligation for carriers to design equipment to facilitate authorized electronic surveillance

1986 - Electronic Communications Privacy Act (ECPA)

- E-mail, facsimiles, display pagers, cellular telephones
- Stored communications and transactional records
- Pen registers and trap and trace devices
- "Roving" wiretaps

1994 – CALEA

- Affirmative obligation to design equipment to facilitate surveillance

TITLE III: KEY DEFINITIONS

"Intercept" - acquiring contents of a communication using a device

"Contents" - substance purport or meaning of a communication

"Wire communication"

- Involving the human voice
- At least partly through use of a wire
- Includes transmission through a "switching station"
- Includes "electronic storage" of a communication

TITLE III: KEY DEFINITIONS (cont'd)

"Electronic communication" - any transfer of signs, signals, writing, images, sounds, data or intelligence of any nature, transmitted in whole or in part by wire, radio, electromagnetic, photoelectronic, or photooptical system except:

- A wire or oral communication
- Tone only paging device
- Tracking device
- Electronic funds transfer

LIMITS OF TITLE III COVERAGE

No person may "intercept" nor use nor disclose the "contents" of any "wire, oral or electronic communication" except as otherwise provided in this statute

Criminal and Civil penalties

Exclusionary rule applies

Exceptions

- Service provider course of business
- Certain FCC monitoring responsibilities
- Consent by one party
- Electronic and radio communications readily accessible to the public
- Pen register and trap and trace devices

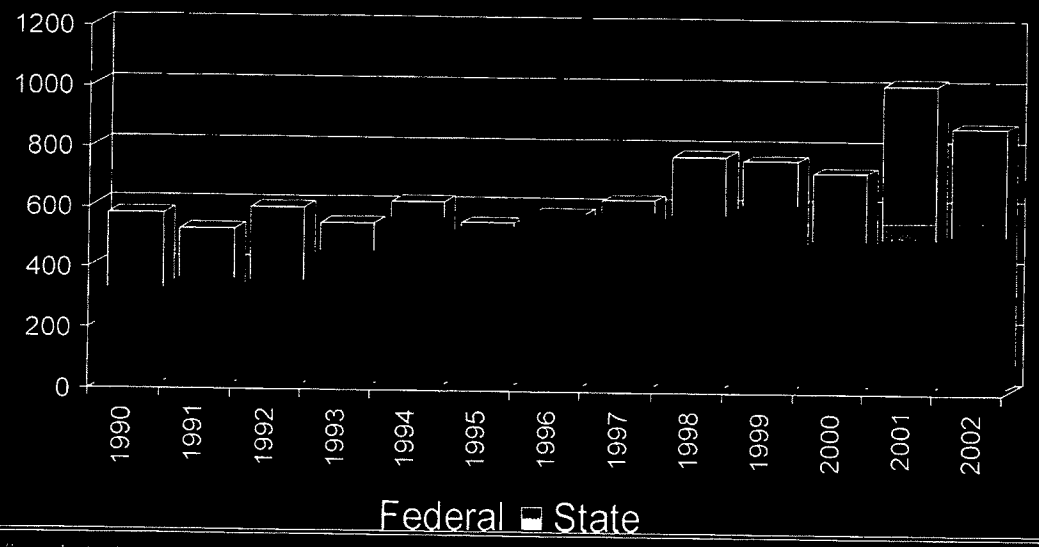
PEN REGISTER AND TRAP AND TRACE ORDERS

- *Smith vs. Maryland* (1979)
- Electronic Communications Privacy Act (1986)
- Acquire outgoing (pen) and incoming (trap) dialing and signaling
- Legal requirements for use
  - Attorney for the government certifies, in writing and under oath, that the information likely to be obtained is relevant to an ongoing criminal investigation
  - No probable cause requirement
  - Magistrate must issue order

TITLE III WIRETAP AUTHORIZATIONS 1990-2002

In 2001, State and Local law enforcement wiretaps outnumbered Federal by a 2:1 ratio

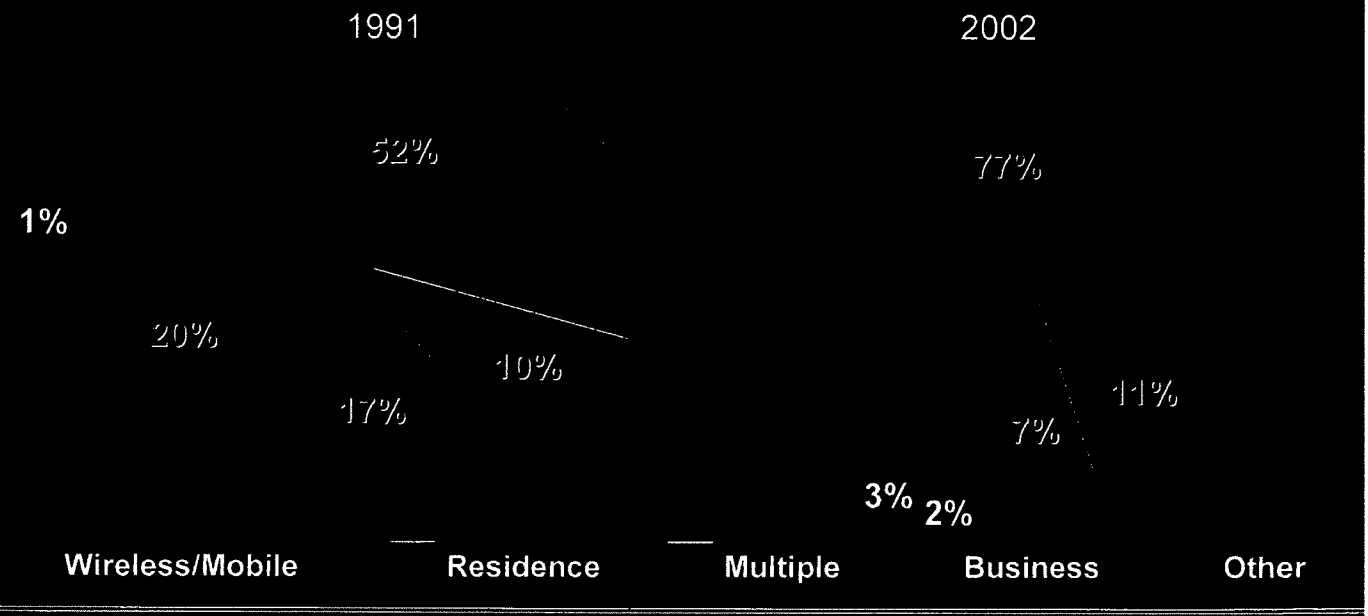
Only in 1996, did Federal wiretaps equal those of State and Local law enforcement (i.e., 1:1 ratio)



WHERE TITLE III WIRETAP AUTHORIZATIONS OCCUR

Shift in location of wiretaps

Importance of electronic surveillance of wireless / mobile



CALEA BACKGROUND

CALEA was enacted in 1994 responding to 1980's technological changes that limited law enforcement's ability to conduct electronic surveillance despite having statutory authority

CALEA does not apply to a specific technology, but rather covers all forms of telecommunications and is technology-neutral

The intent of CALEA was to be forward-looking and put industry on notice with respect to future services and law enforcement's electronic surveillance needs

CALEA , THE RESULT OF 1980's TECHNOLOGICAL CHANGES

1980's technological changes introduced services that threatened or eliminated law enforcement's ability to conduct electronic surveillance:

- Call forwarding
- Call transfer
- Multi-party calling
- Calling Cards

CALEA: FORWARD-LOOKING LEGISLATION

CALEA requirements are not static and do not apply only to technology available at the time of enactment

Legislative history clearly states that service providers are to:

> *". . . ensure that new technologies and services do not hinder law enforcement access to the communications of a subscriber who is the subject of a court order authorizing electronic surveillance."*

Telecommunications services are quickly migrating to packet networks designed to carry Internet traffic with little or no ability to facilitate electronic surveillance

WHAT IS CALEA ABOUT?

CALEA is about ***ACCESS*** not *AUTHORITY*

The intent of CALEA is to ensure that law enforcement has the capability to intercept all call content and call-identifying information coming from or directed to the telecommunications instrument that is the subject of a lawfully-authorized electronic surveillance

CALEA IMPLEMENTATION PROGRESS – TRADITIONAL TELECOMMUNICATIONS SERVICES

Finalization of the industry's first electronic surveillance standard: J-STD-025, FCC, and Court rulings

Nationwide Right-to-Use (RTU) software license agreements making technical solutions available

Enhanced capability to lower law enforcement's delivery costs and virtually eliminate facility-based delay

Flexible deployment to significantly lower the burden on small, rural service providers

CALEA IMPLEMENTATION PROGRESS – OTHER TELECOMMUNICATIONS SERVICES

Deployment of technical capabilities in many wireless networks

FBI participation in a variety of industry-sponsored standards-setting organizations allowing it to influence the design of technical capabilities

Development of law enforcement requirements for next-generation services

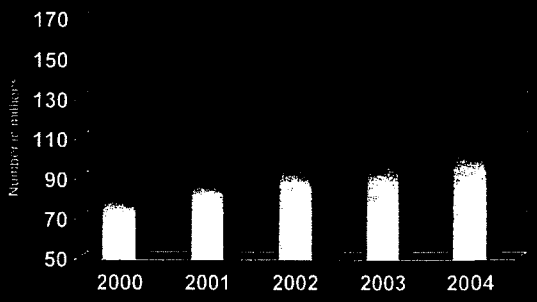
- Packet Surveillance Fundamental Needs
- Carrier Grade Voice over Packet
- Public Internet Protocol Network Access Services

TECHNOLOGICAL CONVERGENCE IS OCCURRING AT AN UNPRECENTED PACE

Wireless mobile development and deployment will accelerate over the next few years

Service providers will release new services to:

- Increase customer loyalty and reduce churn
- Gain additional revenue from existing subscribers
- Attract new subscribers
- Reduce expenses

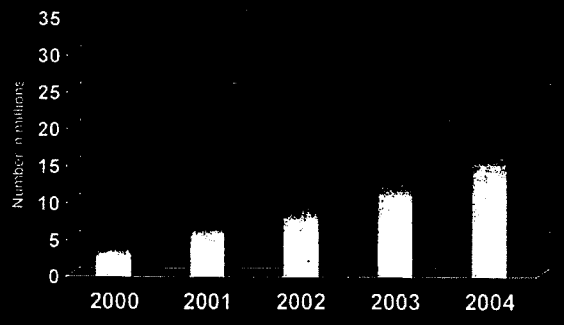


Convergence is bringing together Internet and wireless environments blurring the "service" distinction

TECHNOLOGICAL CONVERGENCE IS OCCURRING AT AN UNPRECENTED PACE (cont'd)

Broadband subscribers, led by cable modem and DSL, grew from almost 19 million in 2002 to more than 26 million in 2003

Subscribers are expected to increase to more than 60 million in 2008



CALEA implementation challenges . . .

REGULATORY UNCERTAINTY

Minnesota PUC ruling Vonage is a telecommunications service - District Court over-ruled MPUC

States opening rulemakings to determine regulatory status of Internet-based communications

FCC Wireline and Cable Modem Internet Access Proceedings and the Ninth Circuit's remand of the FCC

FCC's recent decision declaring pulver.com an "information service"

REGULATORY UNCERTAINTY (cont'd)

DOJ/FBI/DEA filed a petition for rulemaking requesting the FCC resolve a number of outstanding issues:

- Identify the types of entities that are subject to CALEA
- Establish packet-mode compliance benchmarks and deadlines
- Provide for future technology benchmarks and deadlines
- Establish procedures for enforcement
- Confirm carriers bear sole financial responsibility for post-95 equipment, facilities, and services
- Permit carriers to recover implementation costs from customers

THE PETITION HAS BEEN INACCURATELY PORTRAYED – SCOPE

Myth: the CALEA petition seeks to apply CALEA to all types of IP-based communication services

- pulver.com
- Skype
- Microsofts' Xbox Live gaming service
- E-mail service
- Instant messaging, and
- Visits to Web sites

Reality: Petition *proposed* coverage of broadband Internet access service providers and certain broadband telephony service providers such as Vonage

THE PETITION HAS BEEN INACCURATELY PORTRAYED – STIFLING INNOVATION

Myth: the CALEA petition would give Law Enforcement a right of prior approval over new communication services

Reality: Petition does not affect the introduction of any new service or feature

- Industry continues the right to adopt CALEA technical standards, either through public standard-setting bodies or private arrangements with their respective equipment vendors
- However, petition introduces accountability

THE PETITION HAS BEEN INACCURATELY PORTRAYED – BROADBAND CARRIERS

Myth: Broadband carriers are information service providers and exempt from CALEA

Reality: That legal issue remains very unsettled

- FCC's express ruling that CALEA applies regardless of changes in technology
- Cable Modem proceeding and Ninth Circuit decisions
- Whether communications are provisioned in narrowband or broadband mode doesn't matter

THE PETITION HAS BEEN INACCURATELY PORTRAYED – EXISTING CAPABILITIES

Myth: Law enforcement has packet-mode intercept technologies of its own

Reality: Don't believe everything you see on T.V.

- In many cases, the information law enforcement needs is only available with the assistance of the service provider
- Law enforcement simply does not have the resources to address every technology and service

THE PETITION HAS BEEN INACCURATELY PORTRAYED – VOLUNTARY COMPLIANCE

Myth: Broadband service providers will assist law enforcement through "voluntary efforts"

Reality: Some service providers are good corporate citizens and others are not

- Law enforcement cannot leave national security to the whims of corporate goodwill
- Congress recognized that law enforcement assistance must be ensured through federal mandate

THE PETITION HAS BEEN INACCURATELY PORTRAYED – EXCESSIVE COSTS

Myth: the CALEA petition would impose excessive costs on industry

Reality: CALEA solution vendors have verbally advised the FBI that bringing packet-mode networks into compliance with CALEA is more cost effective and efficient that circuit-mode networks, particularly as part of an integrated enterprise solution, with security and quality of service features

THE PETITION HAS BEEN INACCURATELY PORTRAYED – PRIVACY

Myth: applying CALEA to packet-mode communications would infringe on customer privacy rights

Reality: services covered by CALEA are subject to more privacy requirements because CALEA contains built-in privacy protections

- Section 105 requires providers to follow certain surveillance provisioning procedures
- Section 103 requires providers to "isolate" the communications of the targeted customer

Basic network diagrams . . .

SIMPLE CIRCUIT SWITCH-BASED TRANSMISSION

Electronic surveillance was conducted in the local loop

CALEA necessitated surveillance move into the service provider network (i.e., switch-based interceptions)

Customer Premise | Local Loop | Service Provider Network | PSTN

Basic network diagrams . .

PACKET-BASED ACCESS PROVIDER TRANSMISSION

The composition of a service provider's network should be transparent to law enforcement

Information available to law enforcement should be reflective of the services provided

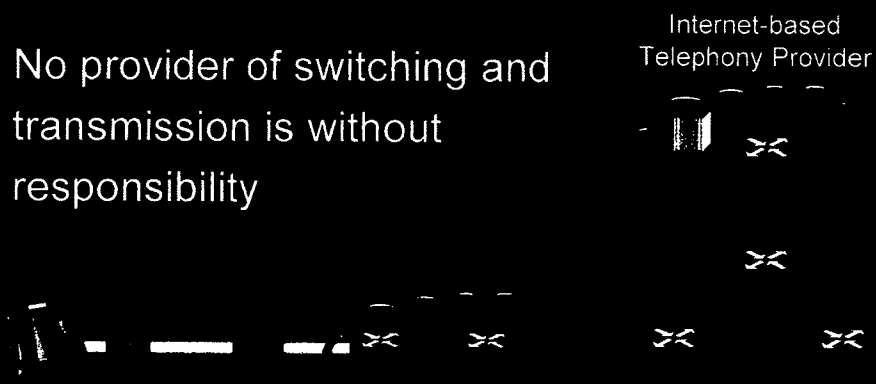
Customer Premise | Local Loop | Service Provider Network | PSTN

Basic network diagrams . . .

INTERNET-BASED TELEPHONY TRANSMISSION

Access providers are responsible for surveillance of the service they provide

No provider of switching and transmission is without responsibility



Customer Premise | Local Loop | Service Provider Network | Internet

Where we go from here . . .

THE FUTURE OF ELECTRONIC SURVEILLANCE *IS* CALEA

Technologies and services will continue to advance – VoIP is just the next step

Electronic surveillance must remain an effective tool

Affirmative requirements, with concrete deadlines, must be imposed and met

The challenges of CALEA implementation will only become more severe over time as new technologies and services are introduced if appropriate steps are not taken prior to service deployment

THE COMMUNICATIONS ASSISTANCE FOR LAW ENFORCEMENT ACT (CALEA) AN INTRODUCTION

COMMUNICATIONS FRAUD CONTROL ASSOCIATIONS (CFCA)

October 12, 2005

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