

CYBER SECURITY- PRIVACY

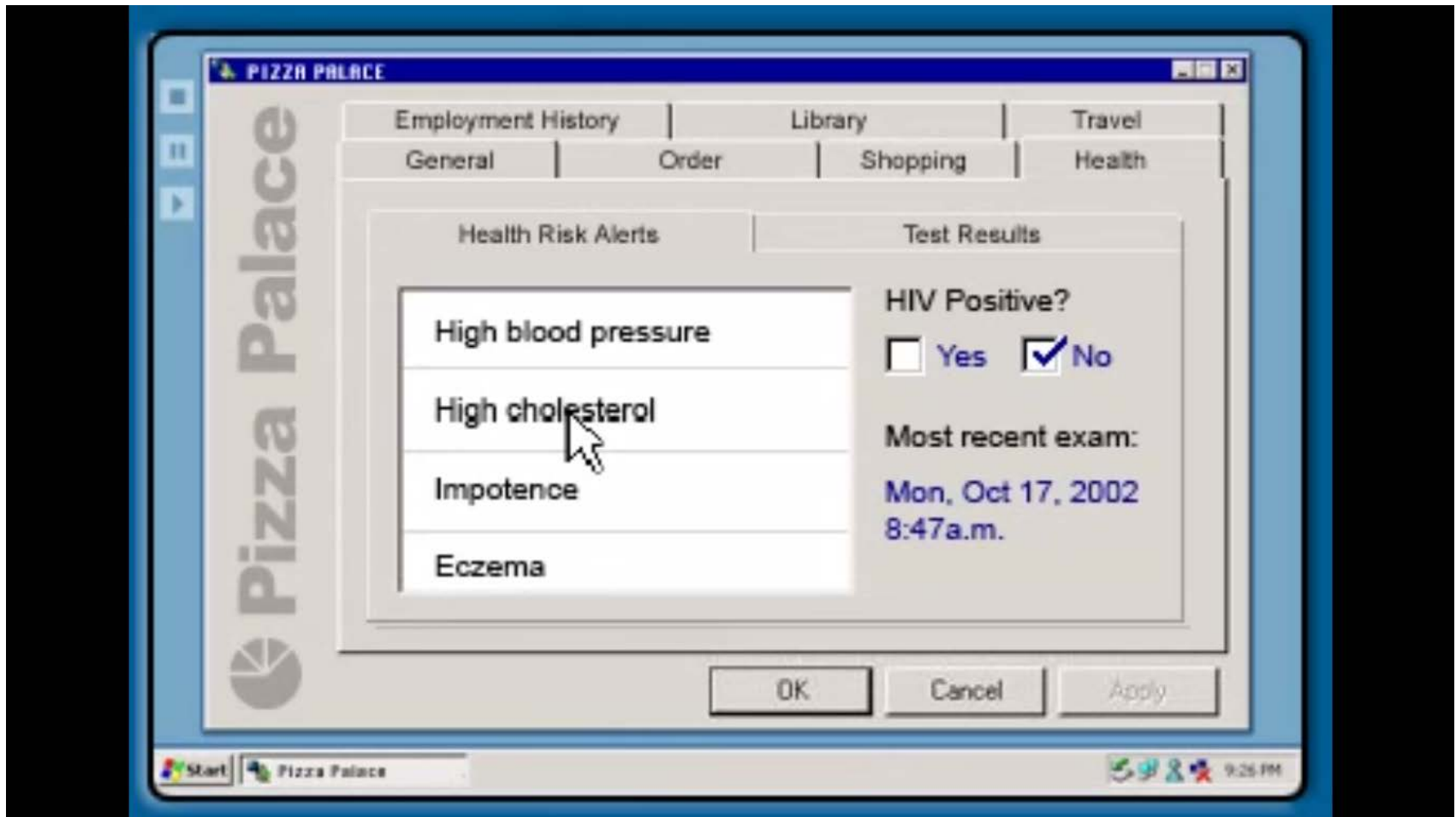
***CAN YOU PROTECT
YOURSELF IN
CYBERSPACE?***

REALLY?????

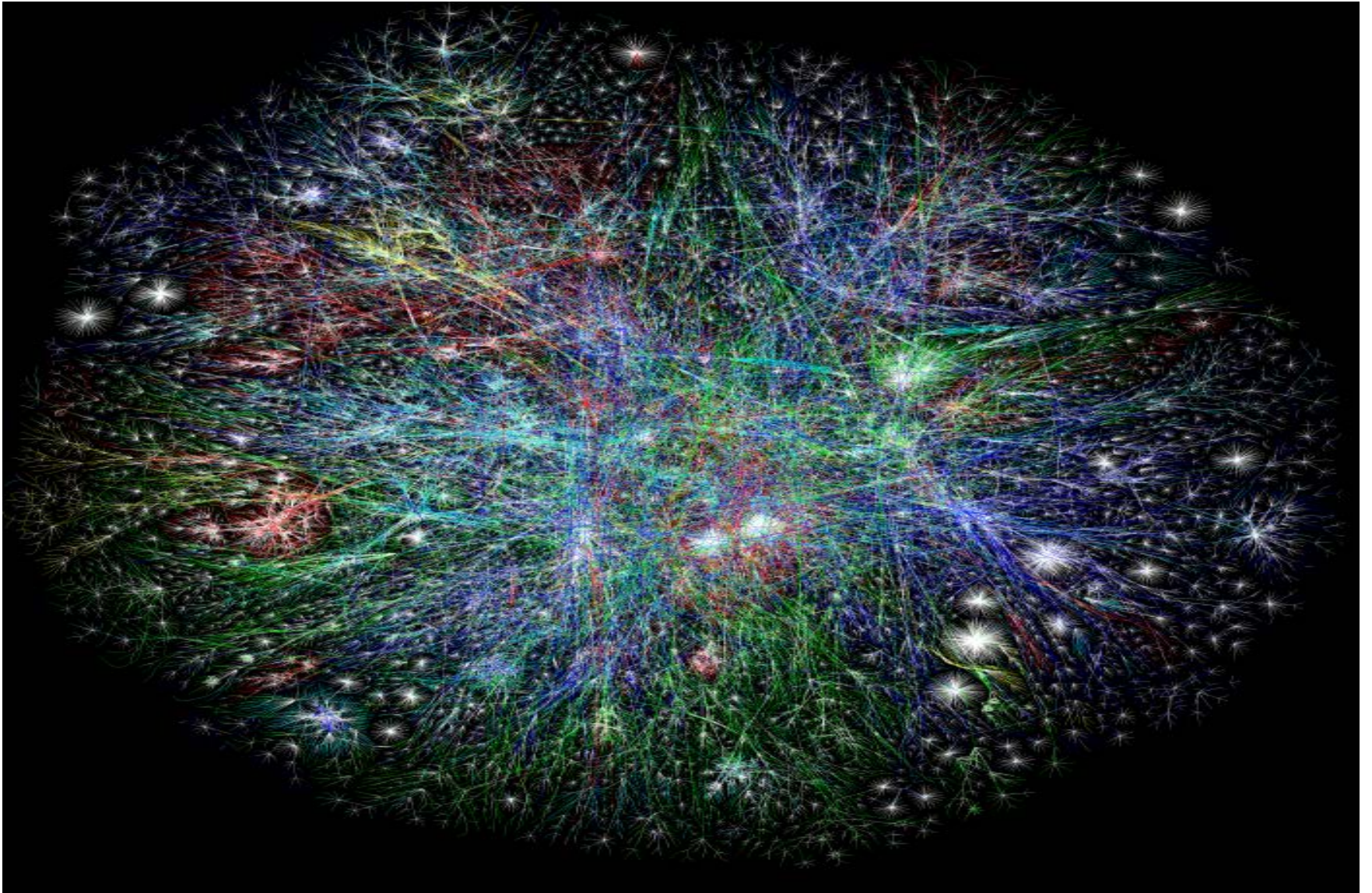
WHO WANTS THE LIVE IN A GLASS HOUSE?



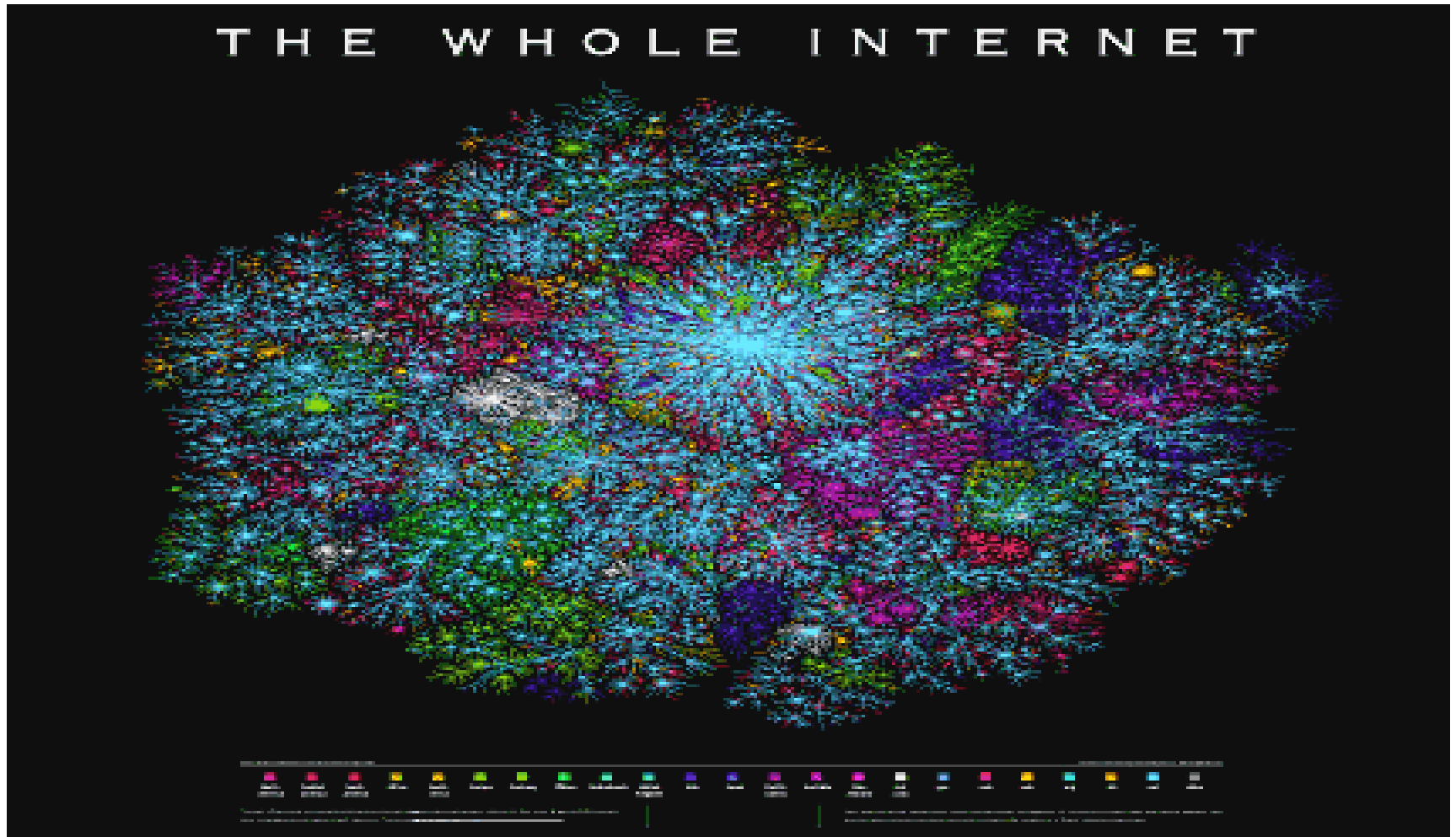
WHO WANTS THE LIVE IN THIS FUTURE?



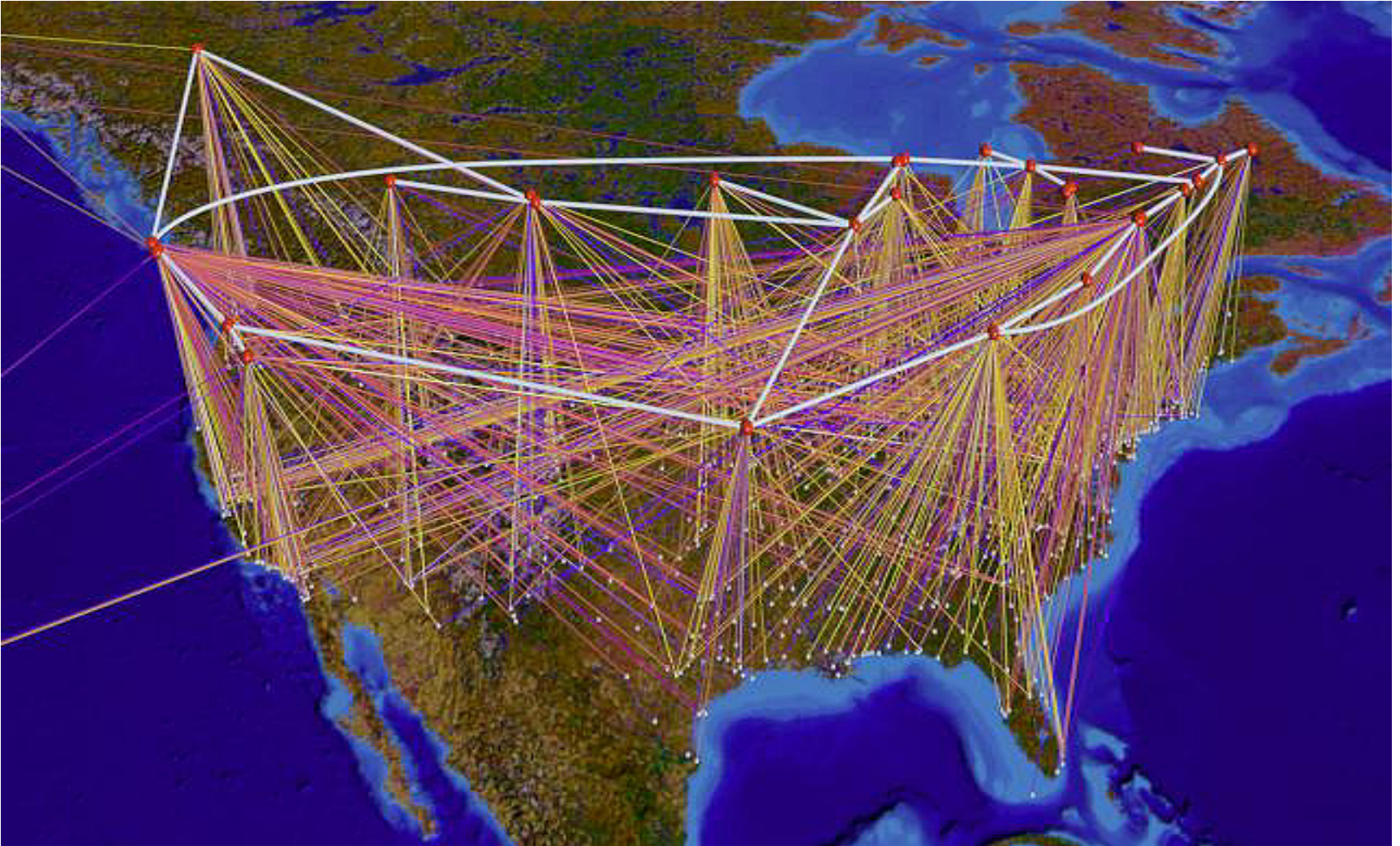
CYBER SPACE



CYBER SPACE: A Dangerous Place?



CYBER SPACE: USA's Infrastructure- Partial



CYBER SPACE: Global Traffic

1¢ **14¢** Per-minute wholesale cost to send an international call to Switzerland.
FIXED-LINE **MOBILE**

27% **TRAFFIC SENT AS VOIP**
 Share of total international voice traffic transported as VoIP by carriers in 2009.

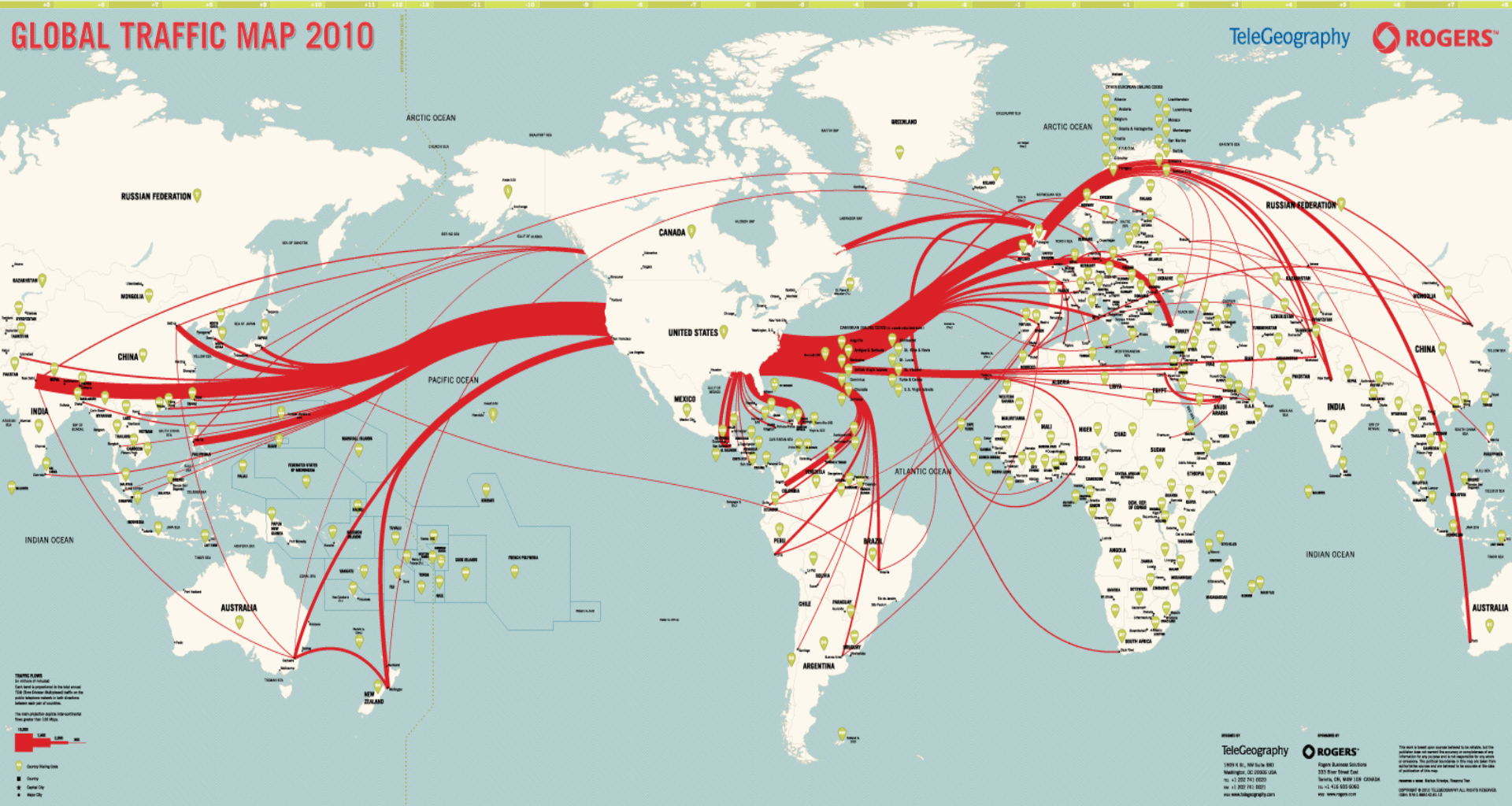
4/5 **WIRELESS WORLD**
 Share of phones worldwide that are mobile.

12% **SKYPE VS. THE WORLD**
 Total international Skype traffic as a percentage of world-wide international voice traffic in 2009, approximately 33 billion minutes.

0.1 **4.1** Billions of new subscribers added since 2000.
FIXED-LINE **MOBILE**

GLOBAL TRAFFIC MAP 2010

TeleGeography **ROGERS**



ISSUED BY
TeleGeography **ROGERS**

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The world's largest open market network is in Canada, but the global market is still dominated by the United States and Europe. The Rogers Business Solutions team is committed to providing the best service and support to our clients. Rogers Business Solutions is a leader in the industry of providing business solutions.

MINUTES & VOLUME

Voice traffic has grown at a remarkable rate since 2000.

18.7

14.9

TOP 10 TRAFFIC DESTINATIONS 2009

U.S. & CANADA

PRICING & REVENUES

Thanks to robust competition, international call rates fell.

WHOLESALE TRAFFIC AND REVENUE BY DESTINATION REGION 2009

U.S. & CANADA

USERS & TECHNOLOGY

Mobile phones have replaced the landline industry. Wireless devices...

MOBILE AND FIXED SUBSCRIBER GROWTH 2007-09

MOBILE

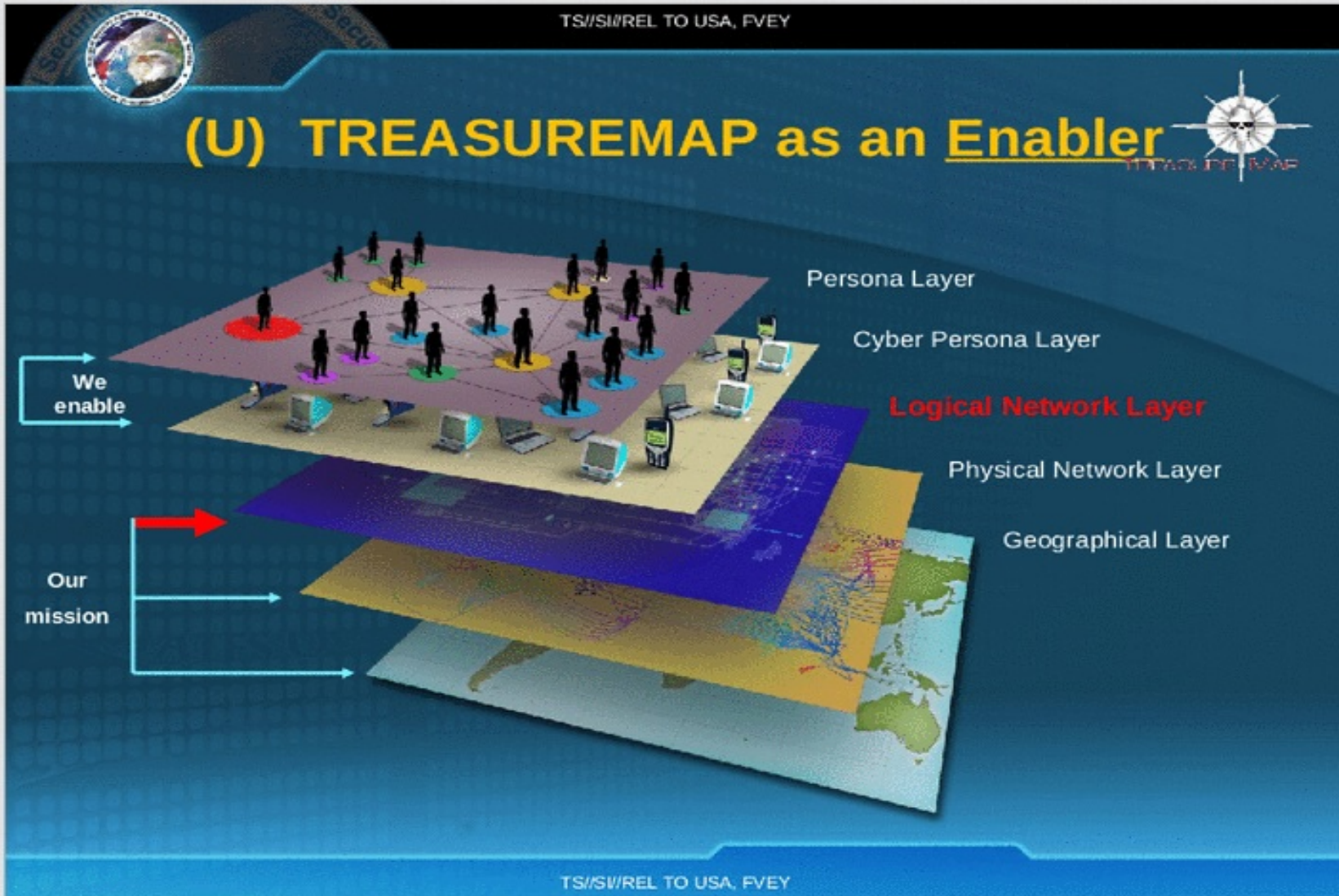
SUBSCRIBERS BY TECHNOLOGY 2009

MOBILE

CYBER SPACE: China's Infrastructure



SCOPE OF CYBER SPACE



VULNARABILITES OF CYBER SPACE: Instantaneous Action at a Distance



VULNARABILITES OF CYBER SPACE: Asymmetries of Cyber Space

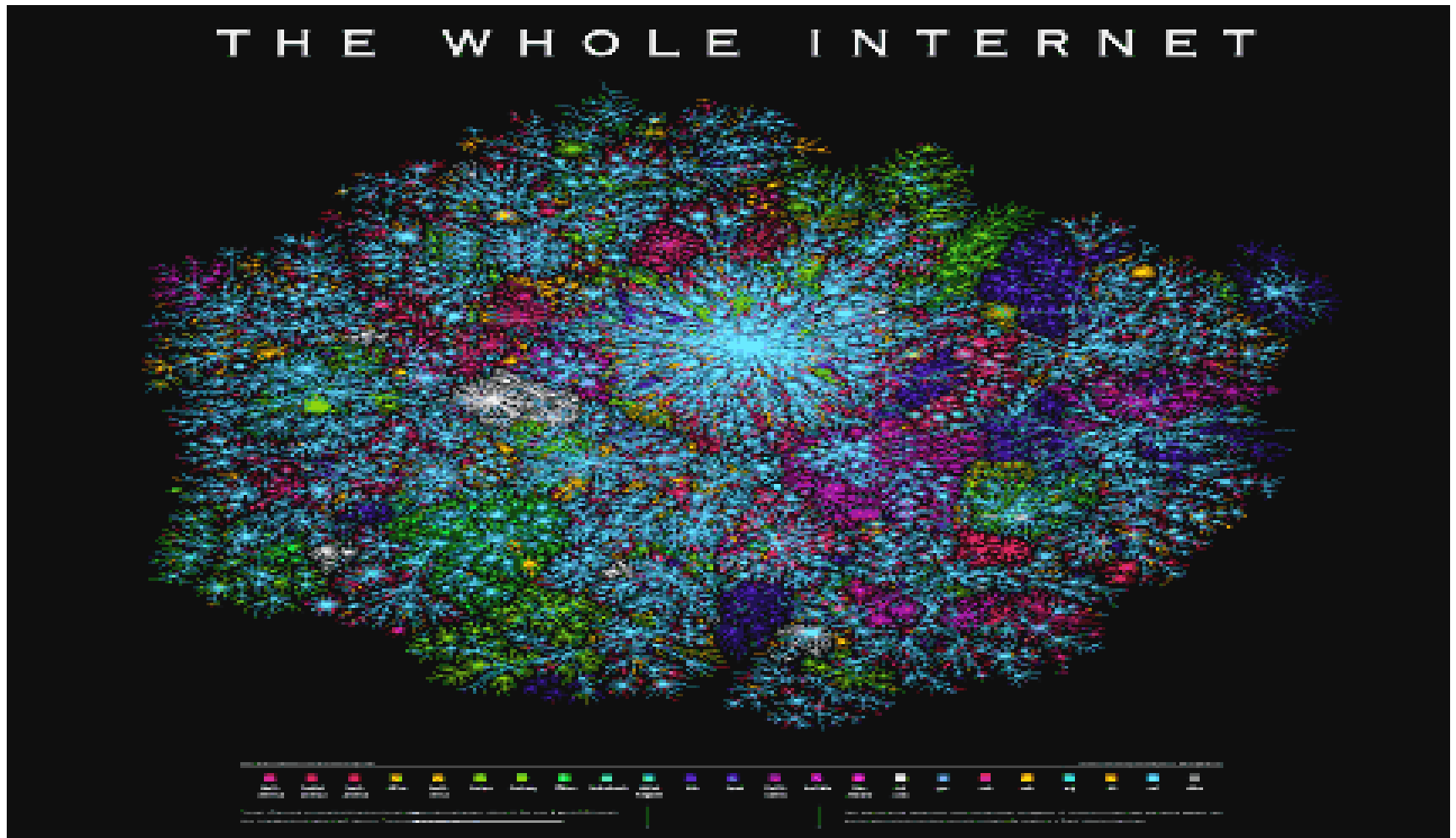


VULNARABILITES OF CYBER SPACE: Anonymity



"On the Internet, nobody knows you're a dog."

VULNARABILITES OF CYBER SPACE: Lack of Borders



VULNARABILITES OF CYBER SPACE: Difficulty of Distinction



PRIVACY: Who is after your private

Data

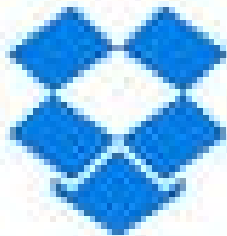
GOVERNMENT



“Every time you pick up the phone, dial a number, write an email, make a purchase, travel on the bus carrying a cell phone, swipe a card somewhere, you leave a trace and the government has decided that it’s a good idea to collect it all, everything, even if you’ve never been suspected of any crime.”

PRIVACY: Who is after your private Data

CORPORATIONS

The Google logo, consisting of the word "Google" in its characteristic multi-colored font (blue, red, yellow, blue, green, red).

WE COOPERATE WITH CORPORATE SURVEILLANCE BECAUSE IT PROMISES US CONVENIENCE, AND WE SUBMIT TO GOVERNMENT SURVAILLANCE BECAUSE IT PROMISES US PROTECTION.

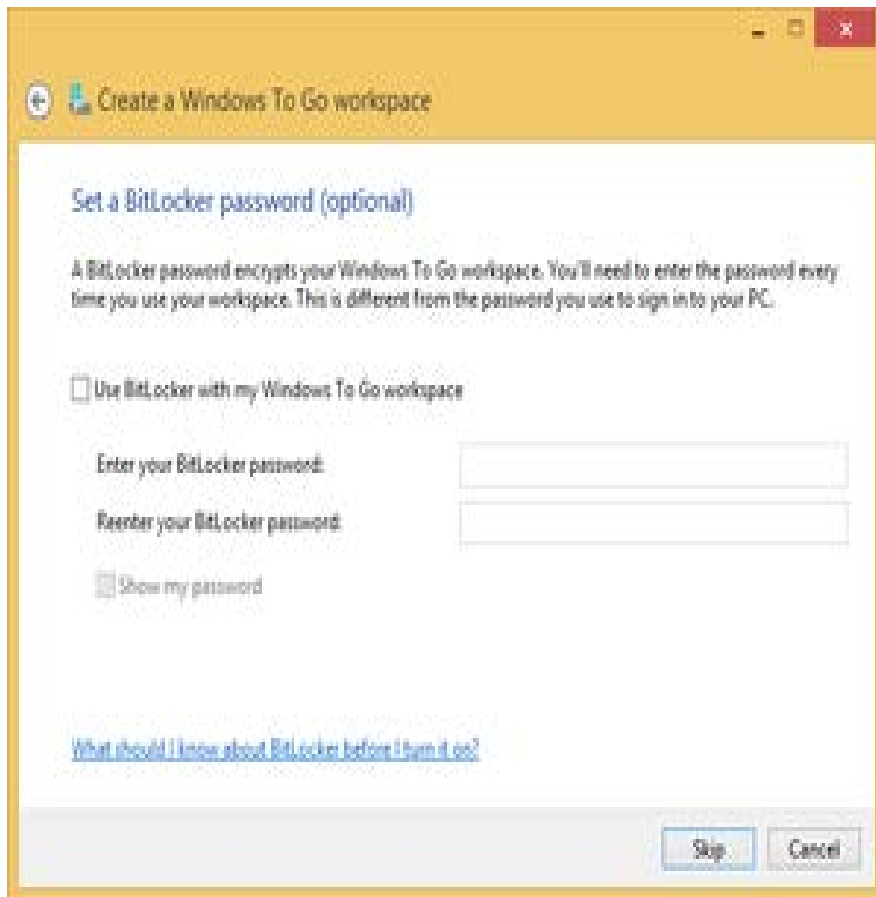
PRIVACY: Who is after your private Data

CYBER CRIMINALS



PRIVACY:HOW CAN YOU PROTECT YOURSELF

HDD ENCRYPTION-Bit Locker, PGP

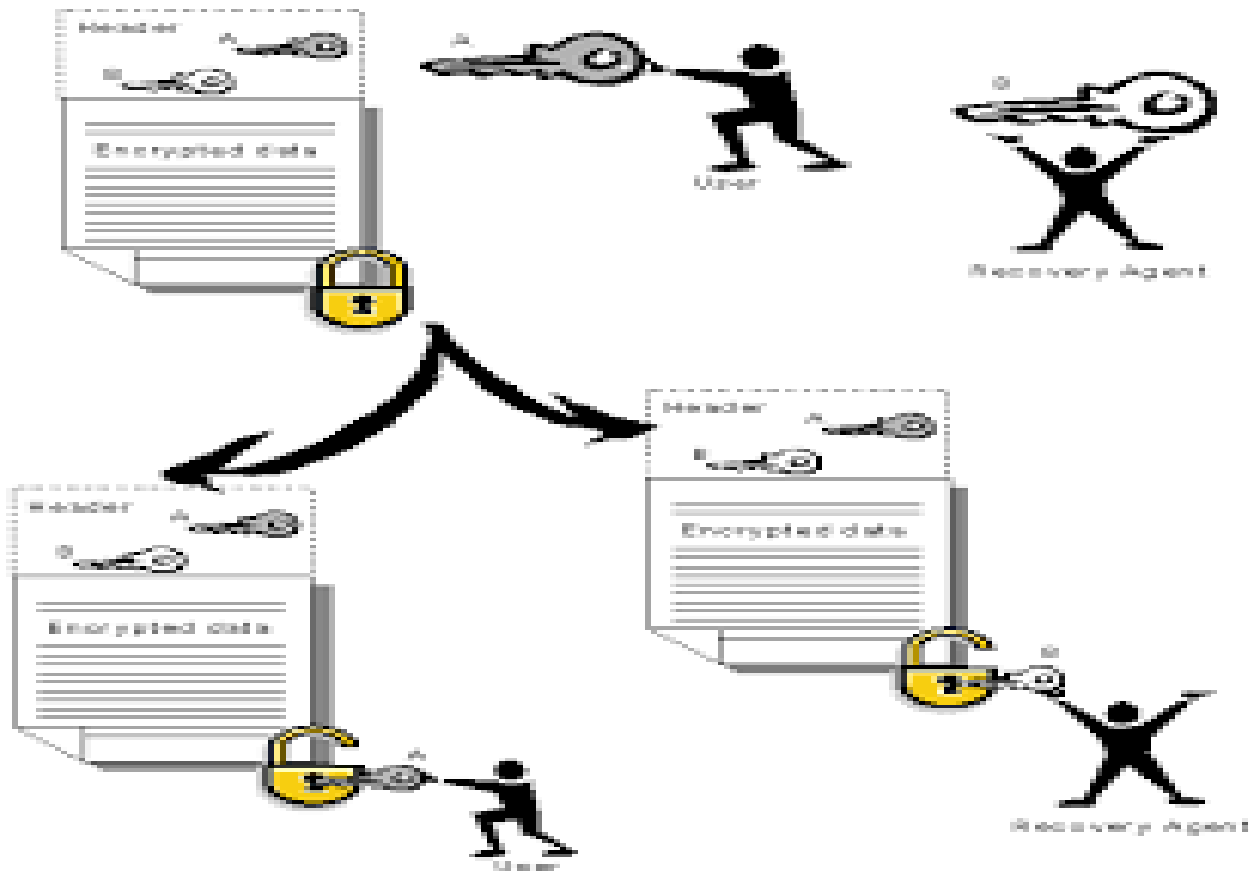


Pretty
Good
Privacy



PRIVACY:HOW CAN YOU PROTECT YOURSELF

FILE ENCRYPTION- EFS, FILEVAULT (MAC)



PRIVACY:HOW CAN YOU PROTECT YOURSELF

SECURE E-MAIL: S-MIME, PGP, [MAILVELOPE](#), [GMAIL-STAKE](#)



PRIVACY:HOW CAN YOU PROTECT YOURSELF



[“ThrowAwayMail.com”](#)

Provides a randomly generated email

[“10 Minute Mail”](#)

Provides a randomly generated email that shuts down after 10 minutes
Allows you to see emails sent to the address (ex: account verification emails)

[“SMS Receive Free”](#)

Provides phone numbers that can be used for verification codes, etc.
Each number has its own page, where you can see all messages sent to that number

PRIVACY:HOW CAN YOU PROTECT YOURSELF

ANTIVIRUS-MALWARE- SPYWARE-FIREWALLS



PRIVACY:HOW CAN YOU PROTECT YOURSELF

PASSWORD MANAGEMENT- LastPass - Keeper

LastPass 

 keeper[®]

PRIVACY:HOW CAN YOU PROTECT YOURSELF

DELETING DATA- ERASER



PGP Shredder

PRIVACY:HOW CAN YOU PROTECT YOURSELF

SECURE CLOUD STORAGE- SPIDEROAK



PRIVACY:HOW CAN YOU PROTECT YOURSELF

SECURE PRIVATE BROWSING- TOR



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[Documentation](#)

Anonymity Online

Protect your privacy. Defend yourself against network surveillance and traffic analysis.



[Download Tor](#)

- Tor prevents anyone from learning your location or browsing habits.
- Tor is for web browsers, instant messaging clients, remote logins, and more.
- Tor is free and open source for Windows, Mac, Linux/Unix, and Android

What is Tor?

Tor is free software and an open network that helps you defend against a form of network

Why Anonymity Matters

Tor protects you by bouncing your

PRIVACY:HOW CAN YOU PROTECT YOURSELF

SECURE PRIVATE SEARCH ENGINE- DUCK DUCK GO



DuckDuckGo

PRIVACY:HOW CAN YOU PROTECT YOURSELF

SECURE WIRELESS CONNECTION-WPA2

The screenshot shows a web browser window displaying the configuration page for a wireless network. The browser's address bar shows the URL `1/wireless_network_configuration_edit.asp`. The browser's tab bar includes several open tabs: California State Univ..., Yahoo!, Bank of America | H..., Wells Fargo - Perso..., Health insurance for..., HÜRRİYET - TÜRKİY..., and Google.

The configuration page is titled "Private WiFi Network Configuration (2.4 GHz)". On the left side, there is a navigation menu with the following items: Status, XFINITY Network, Local IP Network, Wi-Fi (highlighted), Firewall, Software, Hardware, Wizard, Connected Devices, Parental Control, Advanced, and Troubleshooting.

The main configuration area includes the following settings:

- Wireless Network:** Enabled (indicated by a green button) / Disabled (grey button)
- Network Name (SSID):** L1A0R1A0
- Mode:** 802.11 g/n
- Security Mode:** WPAWPA2-PSK (TKIP/AES) (recommended) (selected in a dropdown menu)
- Channel Selection:** (empty)
- Channel:** (empty)
- Network Password:** (empty)
- Show Network Password:**

A note at the bottom of the configuration area states: "WPA2 requires a 8-63 ASCII character or a 64 hex character password. Hex means only the following characters can be used: ABCDEF0123456789."

At the bottom of the page, there are two buttons: "SAVE SETTINGS" and "RESTORE DEFAULT SETTINGS".

THE CONSTITUTION AND CYBERSPACE

FOURTH AMENDMENT

The [Fourth Amendment](#) of the [U.S. Constitution](#) provides, "[t]he right of the people to be secure in their persons, houses, papers, and effects, against [unreasonable searches and seizures](#), shall not be violated, and no [Warrants](#) shall issue, but upon [probable cause](#), supported by Oath or affirmation, and particularly describing the place to be [searched](#), and the persons or things to be [seized](#)."

The ultimate goal of this provision is to protect people's [right to privacy](#) and freedom from arbitrary governmental intrusions.

The protection under the [Fourth Amendment](#) can be waived if one voluntarily [consents](#) to or does not object to evidence collected during a [warrantless search or seizure](#).

Private intrusions not acting in the color of governmental authority are exempted from the [Fourth Amendment](#).

GOOGLE PRIVACY POLICY



DATA COLLECTED BY APPS: EXAMPLE



chrome

Take pictures and videos

Record audio

Location information (Approximate, Precise)

Read your Web bookmarks and history

Modify or delete contents of your SD card

Control NFC

Add or remove accounts

Change your audio settings

Read sync settings

Install shortcuts

Access Mobile Device Management (MDM) content providers

GDPR: Global Data Privacy Regulations



- Increased Territorial Scope
- Penalties up to 4% revenue or 20 Million Euro
- Consent must be intelligible and accessible
- Breach notification 72 hours
- Right of access – free copy
- Right to be forgotten
- Data Portability
- Privacy By Design
- Data Protection Officers requirements



CISO SPOTLIGHT, LLC

Trusted Cybersecurity
and Privacy Training

RSAConference2018

GDPR: Global Data Privacy Regulations



Companies Must Also...

Tell individuals how their personal data will be used

2 Grant individuals access to correct or erase their personal data upon request

3 Comply with requests from individuals to stop using their personal data for marketing

Keep personal data secure

5 Make sure staff are appropriately trained in the care and handling of personal data

6 Put data processing agreements in place to ensure third party vendors follow the same protective rules

Notify regulators and/or affected individuals in the event of a serious data breach (usually within 72 hours)

8 Limit transfers of personal data out of the European Economic Area to only those that comply with EU international data transfer rules

9 Build privacy compliance into product, software and services design, processing tools and system development

CCPA: California Consumer Privacy Act

- Right to know all data collected by a business on you.
- Right to say NO to the sale of your information.
- Right to DELETE your data.
- Right to be informed of what categories of data will be collected about you prior to its collection, and to be informed of any changes to this collection.
- Mandated opt-in before sale of children's information (under the age of 16).
- Right to know the categories of third parties with whom your data is shared.
- Right to know the categories of sources of information from whom your data was acquired.
- Right to know the business or commercial purpose of collecting your information.
- Enforcement by the Attorney General of the State of California.
- Private right of action when companies breach your data, to make sure these companies keep your information safe.

	GDPR	CCPA
Basis for consent	Opt in	Opt out
Who it applies to	Any organisation holding personal data on EU citizens	For-profit entities that process personal data of California residents and either: <ol style="list-style-type: none"> 1. Do \$24 million in annual revenue 2. Hold the personal data of 50,000 people, households, or devices 3. Do at least half of their revenue in the sale of personal data.
Rights for individuals	Access to data being held, right to erasure, correction, object to automated processing. Right to notification if there is a data breach.	Right to disclosure and objection relating to who data is being sold to, no discrimination if individual objects to data sold. Right of access to data being held. Right to know how personal data is being used. Right to know who data has been provided to.
When does it come into force	May 25, 2018	Jan 1, 2020
Financial Penalties	4% of turnover or €20m (whichever is greater)	\$7,500 per violation. \$750 or actual damages for each individual, whichever is greater
Time allowed to respond to a request	1 month	45 days

TRUTH or LIE



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Public Policy Center*



CONCLUSIONS

“I AM REGULARLY ASKED WHAT THE AVERAGE INTERNET USER CAN DO TO ENSURE HIS SECURITY. MY FIRST ANSWER IS USUALLY ‘NOTHING; YOU’RE SCREWED’.”

BRUCE SCHNEIER