Cyber Warfare and the needs to build Egyptian National Cyber Security Agency (NCSA)

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Berlin October 2013 and ,Edward Snowden leaked document indicated that from roofs of the US and the British Embassy, the secret services have been listening to the entire district, including the mobile phone of Angela Merkel. The antennas of the British GCHQ are hidden in a white cylindrical radome, while the listening post of the American NSA is covered by radio transparent screens.

Couple of communications engineers Mathias Jud and Christoph Wachter wondering If people are spying on us, it stands to reason that they have to listen to what they are saying.

On the roof of the Swiss Embassy, they installed a series of antennas. They weren't as sophisticated as those used by the Americans and the British.

They were make shift can antennas, not camouflaged but totally obvious and visible. The Academy of Arts joined the project, and so they built another large antenna on their rooftop, exactly between the listening posts of the NSA and the GCHQ.

they named the project "Can You Hear Me?"

The antennas created an open and free Wi-Fi communication network in which anyone who wanted to would be able to participate using any Wi-Fi-enabled device without any hindrance, and be able to send messages to those listening on the frequencies that were being intercepted. Text messages, voice chat, file sharing

"Hello world, hello Berlin, hello NSA, hello GCHQ."

"NSA Agents, Do the Right Thing! Blow the whistle!"

"This is the NSA. In God we trust. All others we track!!!!!"

"This is the NSA's Achilles heel. Open Networks."
"Agents, what twisted story of yourself will you tell your grandchildren?"

"@NSA My neighbors are noisy. Please send a drone strike."

"Make Love, Not cyberwar."

This is not the first embassies espionage on local host

The Australia–Indonesia spying scandal concerns allegations made in 2013 . the Australian Signals Directorate attempted to monitor the mobile phone calls of **Indonesian president Susilo, his wife, and senior officials.**

Edward Snowden told the South China Morning Post that the NSA had led more than 61,000 hacking operations worldwide, including many in Hong Kong and mainland China , of course this talk he after he flees to Hong Kong

Snowden tells that there is **Xkeyquery** which is giant database spying on every cell phone on earth every text message every VoIP program …and it enables in Arabic , English , Iranian …Chinese

That program which was presented at 2008 listen to all communications on earth aggregate the information , detect the potential thread

For instance encrypted message in Arabic from cell phone to another

Also he mentioned that all encryption algorithms have backdoor just for NSA

Also they have access in all OS like **windows** , **Apple** also messengers like **skype** , **yahoo** and search engines like **google** and Bing according to act of law **The PATRIOT Act**

The PATRIOT Act is an Act of Congress that was signed into law by **President George W. Bush on October 26, 2001.**

With its ten-letter abbreviation (USA PATRIOT) expanded, the full title is

"Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001".

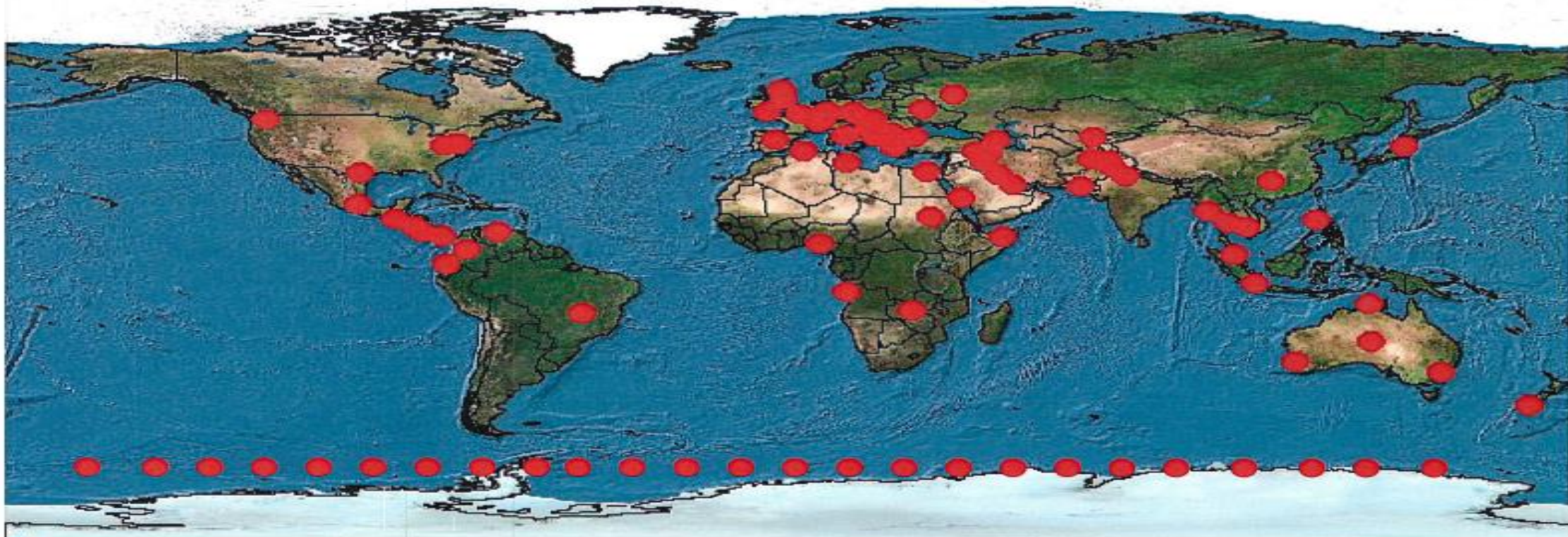On May 26, 2011, President **Barack Obama** signed the PATRIOT Sunsets Extension Act of 2011

a four-year extension of three key provisions in the USA PATRIOT Act:

roving wiretaps, searches of business records, and conducting surveillance of "lone wolves" individuals suspected of terrorist-related activities not linked to terrorist groups.
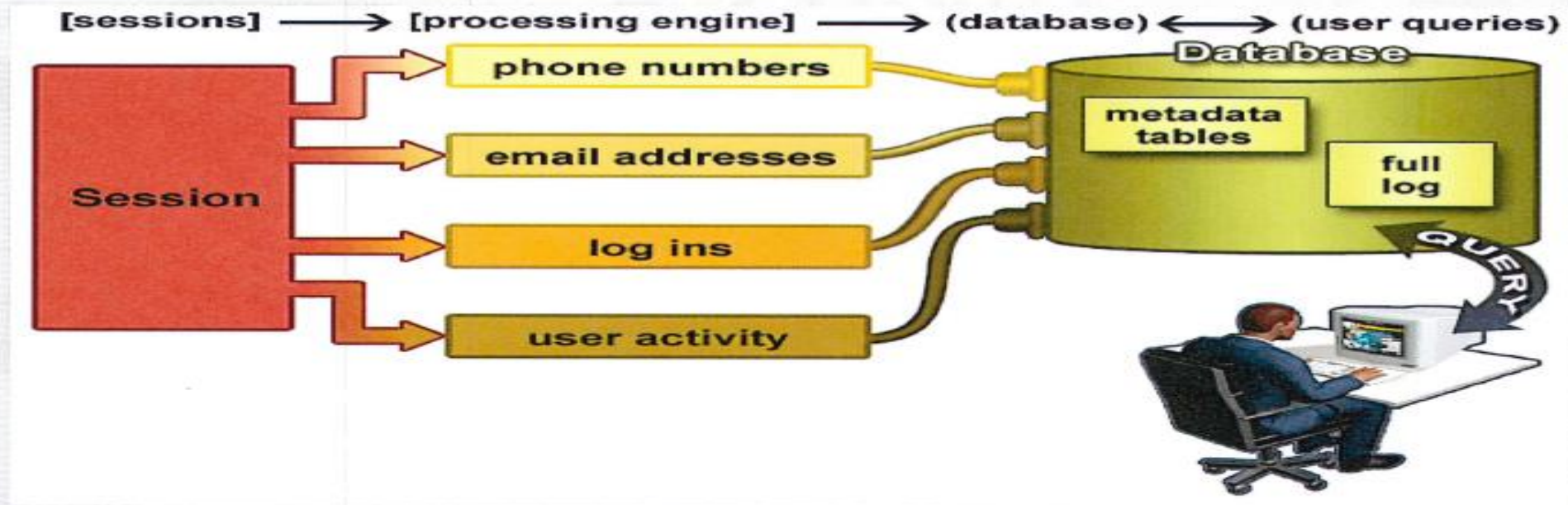
What XKS does with the Sessions

KEYSCORE

Plug-ins extract and index metadata into tables

Future

- **High speeds yet again (algorithmic and Cell Processor (R4))**
- **Better presentation**
- Entity Extraction
- **VoIP**
- More networking protocols
- Additional metadata
  - Expand on google-earth capability
  - EXIF tags
  - Integration of all CES-AppProcs
- **Easier to install/maintain/upgrade**

All the previous examples just ring a bell for espionage act ivies could happened by foreign embassies on homeland soil

How to overcome these threads

We know that we can't force move **foreign embassies** ,and it's very costly to move **Egyptian parliament** and **Egyptian ministries** away from downtown near western , chinses and Russian embassies although we go in right on track with new governmental capital project

But we can do the following ,I propose to name this agency

"Egyptian National Cyber Security Agency" (NCSA)

This agency is responsible for information aggregation from Homeland security agency , Central Intelligence , Military intelligence and all other know or unknown agencies responsible for security inside or outside homeland also responsible for counter attacks from foreign countries embassies or individuals.

NCSA responsible for whole governmental communications , infrastructure and data secretes and data integrity

NCSA should rise and collect all talented ethical hackers or potential hackers for training , knowledge transfer , reach cutting age technology on the world on that field

NCSA should be responsible for secure VoIP communication program for senators and high rank officials , this program is encrypted with ElGamal Egyptian encryption algorithm invented at 1985 , which use for voice and text messages

NCSA should develop our new operating system like chinses Kylin (operating system)which built on open source operating system which is FreeBSD

NCSA Should build High Tech local institute responsible for developing those solutions like the OS and encrypted communication tools also discovering the loophole's Or variabilities in Egyptian system

Egypt should ready and equipped for Cyber warfare and we need brains like you guys innovate ideas

Last one note:

<u>At least now we can use landline telephony instead of cell phones for senior officials .</u>