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The Data Encryption Problem

A change in paradigm.

Collection of encrypted data.

Traditional approaches to decryption.

A different approach (to both).

Our experience with it.

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Milano, Italy

Founded in 2003

Venture backed in 2007

Core business IT offensive security

Remote Control System (RCS)

Let's begin.

Encryption.

Hiding information.

Common scenario.

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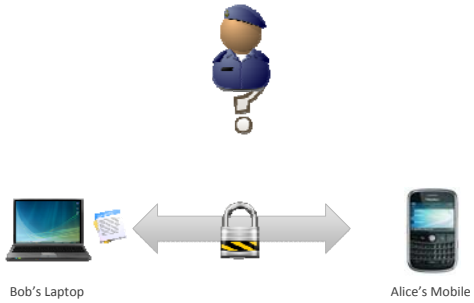

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Traditional lawful interception.

Any other channel you can tap.

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Encrypted data.

We don't care about the rest.

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We don't have the key.

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We don't know anything about the algorithm.

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Potentially thousands of encrypted communications per day.

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How can we decrypt that data?

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Bruteforcing is impratical.

Keyspace can be made vast with good passwords.

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Cryptanalysis.

Accessing encrypted information without the secret key.

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Algorithms in common use are a few.

RSA.

AES.

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SSL is the most common protocol.

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Peer reviewed, tested and sound.

Some (highly) theoretical attacks.

Not usable in real cases.

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You're not going to spend much time on breaking AES or RSA, are you?

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We cannot guess the secret key.

We cannot break the algorithm.

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There must be another way.

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We forgot some players.

Bob and Alice.

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We are talking about modern communications.

Bob and Alice use devices to communicate.

Computers and smartphones.

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People and computers.

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The weakest link.

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You can trick people in doing what you want them to do.

Think about ads …

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You can evade computer security.

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A short “what if” game.

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What if …

I can install an “agent” on Bob’s computer?

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Contrary to common belief a manageable effort.

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Well, easier than breaking the math.

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As easy as sending an SMS.

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You can also play the hackers game.

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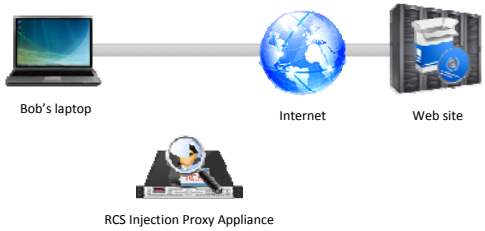

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Zero day exploits.

Turn documents into weapons.

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Don’t forget the people.

Social engineering.

Trick them.

Be creative.

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If you’re methodical

you can expect consistent results.

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Our software agent is installed on Bob’s laptop.

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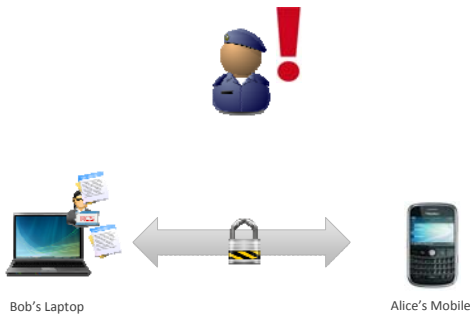

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What if …

our agent is able to get the cleartext?

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The data encryption problem is no more.

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What if …

our agent is able to get the keys, too?

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Cleartext is my primary target.

But the keys open the realm.

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I can decrypt what I cannot take in cleartext.

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Complements traditional lawful interception.

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I can also impersonate someone.

Cryptographically sound.

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Breaking into devices is a manageable

one shot effort.

You can expect results.

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Let's forget about encryption.

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We talked about traditional lawful interception.

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Limited in range of action.

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Limited by country borders.

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With an agent, you get data from anywhere.

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Regardless of distance.

Protocols.

Laws.

Third party cooperation.

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There's more.

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The most interesting data never travels on the Internet.

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Contact list.

Agenda.

Documents & plans.

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The agent approach exposes you to a new series of problems.

You want guarantees.

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Antiviruses actively search for "hidden" software.

Our agent must be invisible.

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Our agent will face different scenarios.

You want it flexible and able to adapt itself.

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Prevent disclosure of your identity.

Our agent must communicate covertly.

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Our experience with Remote Control System.

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Tactical solution.

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Police forces.

Intelligence agencies.

5 continents.

(estimated) thousands of targets.

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High success rate.

Positive feedbacks.

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Our core business.

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Let's sum up.

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Forget about encryption.

Intercept them anywhere.

Get what you usually miss.

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For more, please get in touch.

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Any idea?

We are listening.

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info@hackingteam.it

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