Cybersecurity Challenges of Financial Institutions in Cyprus

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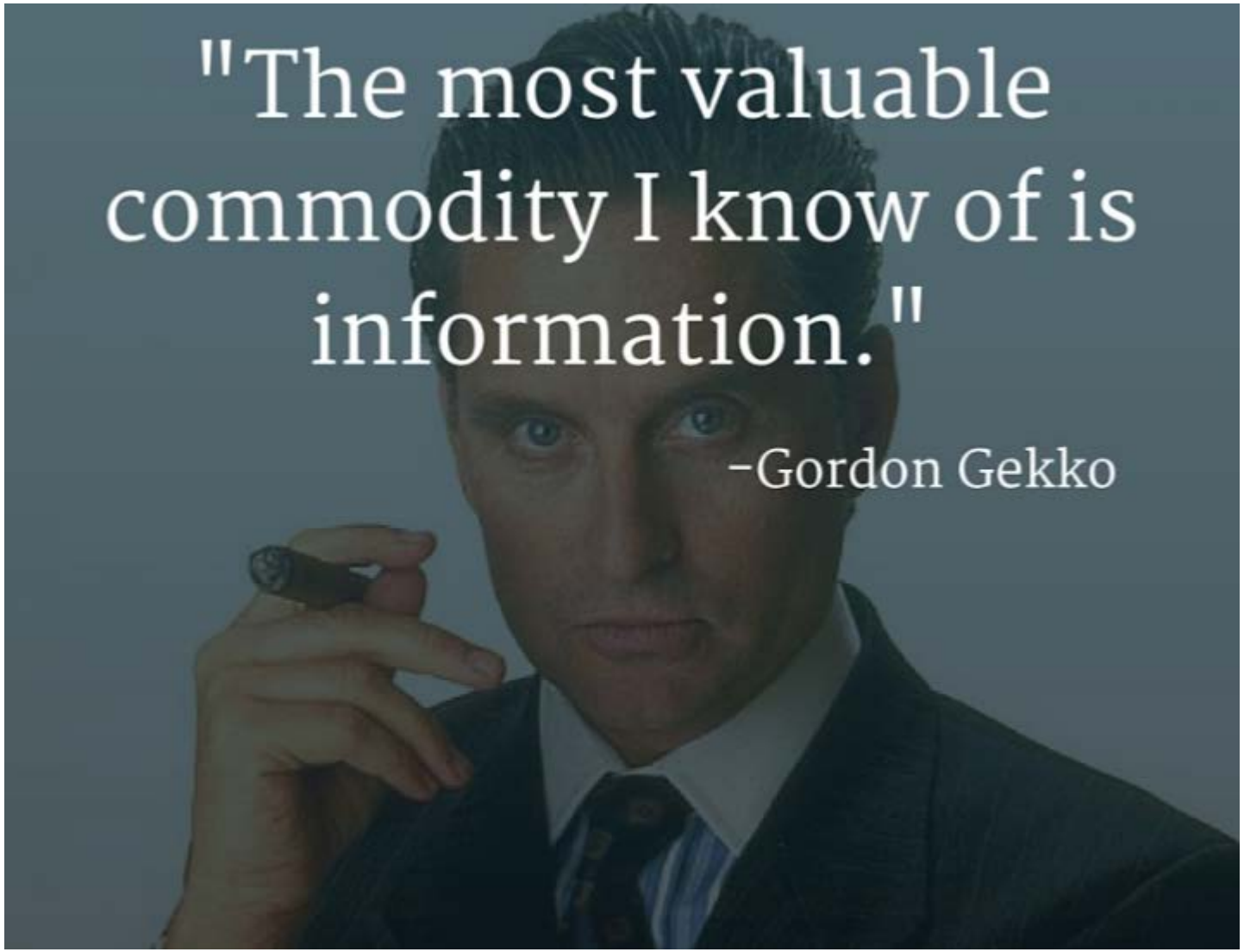
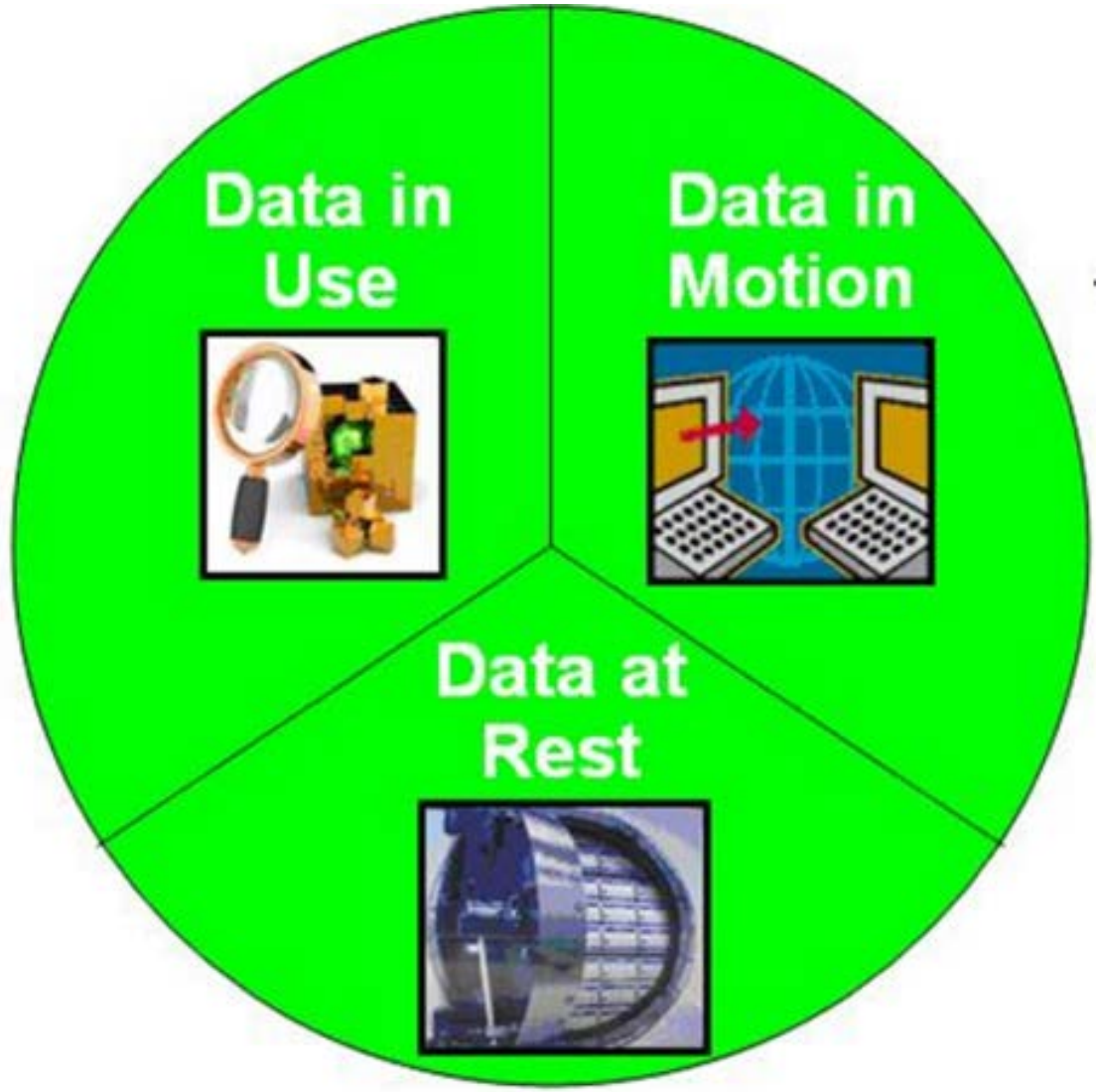
«HOW S@FE IS YOUR BUSINESS?»

Thursday, 02 February 2017



Film “Wall Street”, 1997

Information is everywhere


Data in Use
Data in Motion
Data at Rest

Information is larger than business

A man is but the product of his thoughts. What he thinks, he becomes.
-Mahatma Gandhi

information

gives life to thoughts and emotions

which create the response

& **form the experience**

the cornerstone of destiny and life

A ship is safe in harbor, but that's not what ships are for.
-William G.T. Shedd

Experience entails taking Risks

The very existence of any entity is bound to risks.

Kyrgyzstan plane crash: 'Crew error' and weather examined

By **Joshua Berlinger**, Jon Ostrower and Joe Sterling, CNN

Updated 0347 GMT (1147 HKT) January 17, 2017

Source: CNN

As long as we are alive

we have only two options:

to take risks and to manage them.

There is no risk in death!

“The Financial Services Industry forms the backbone of today’s economic environment. The very real prospect of getting access to large amounts of capital has made it a prime target for the well organized and well funded cyber criminals of today.”

“The **theft of information assets** and

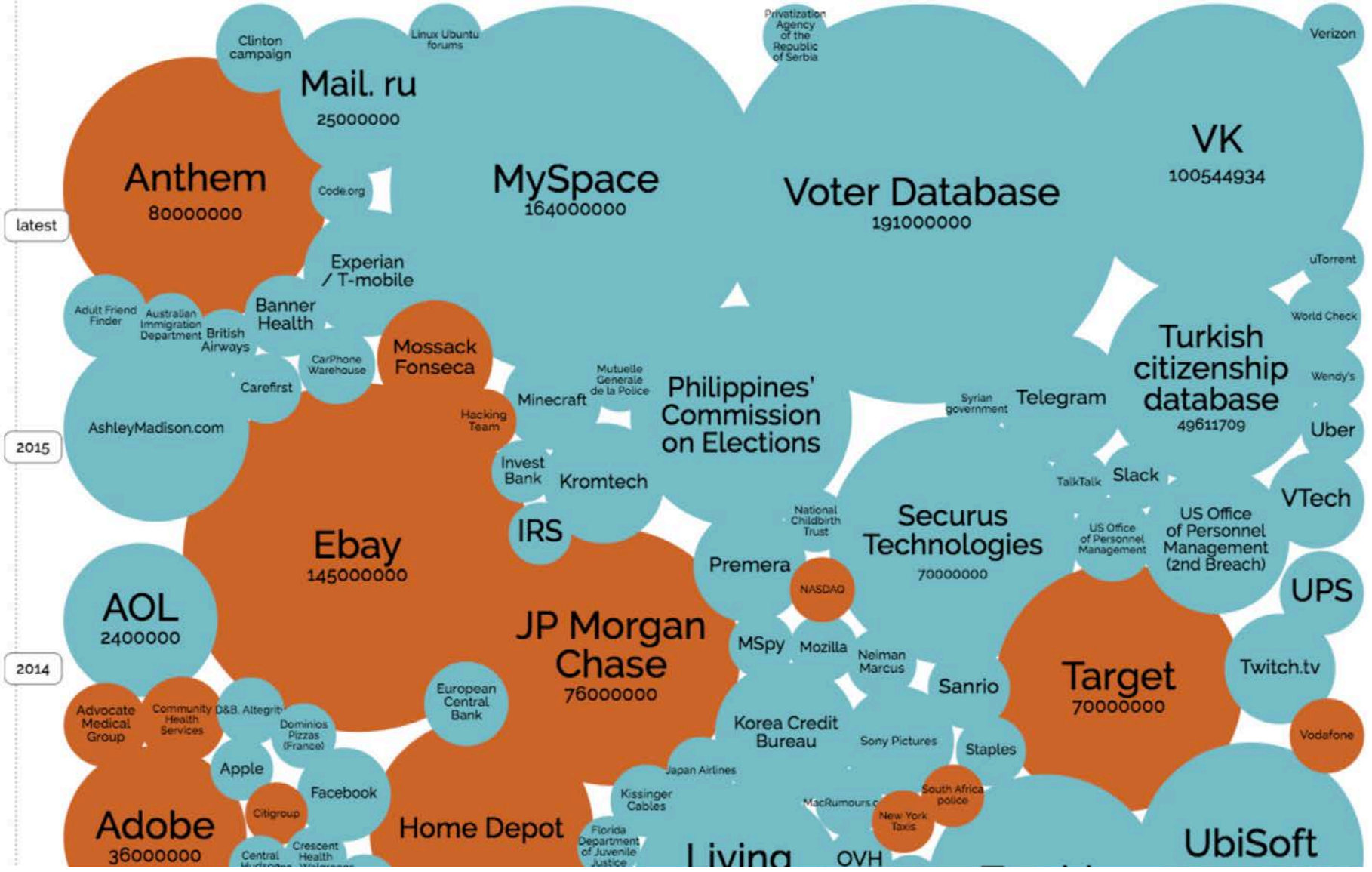
the **intentional disruption of online processes**

are among the most important business risks facing financial services

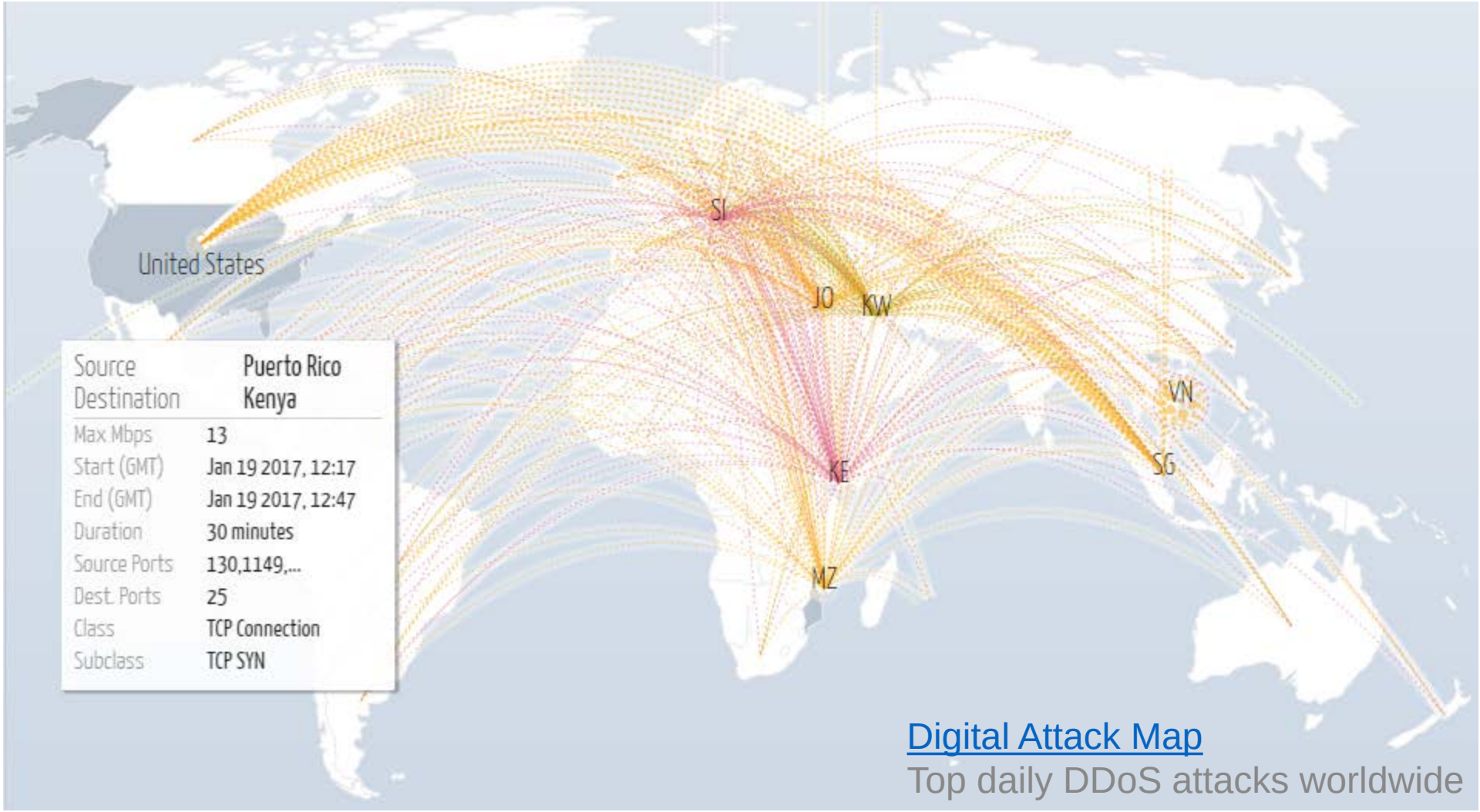
organisations today.”

IBM Security, *The Cyber security challenge within the Financial Services Industry,* 2016

Theft of Information Assets → Data Leakage

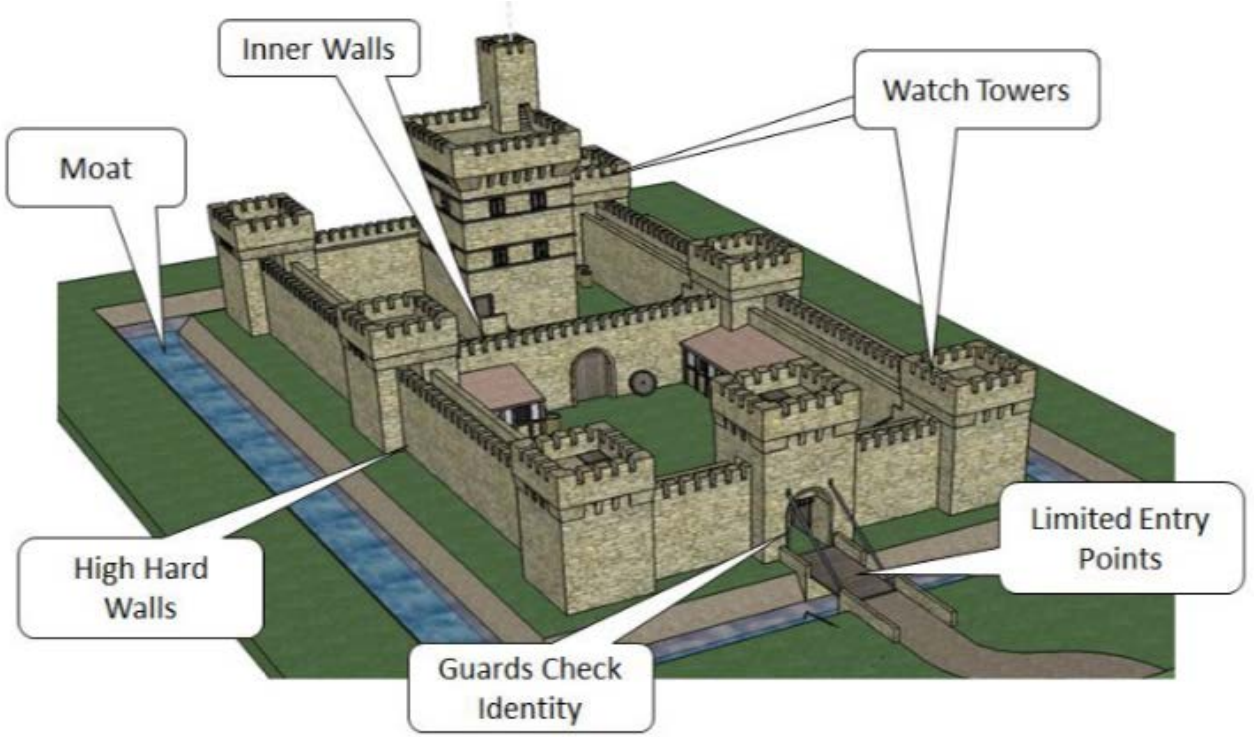


Intentional Disruption of Online Processes



What about Cyprus?

Are we still protecting the castle?



Anonymous DDoS Attacks Hit Central Banks of Cyprus, Greece, Netherlands

'[O]ur target is the Global Banking Cartel,' the hackers stated.

By **Jeff Goldman** | Posted May 09, 2016

Share

Members of Anonymous recently announced the launch of a 30-day campaign targeting central banking sites worldwide with DDoS attacks. Early targets of the campaign included the Central Banks of Cyprus, Greece and the Netherlands.

"Like Icarus, the powers that be have flown too close to the sun, and the time has come to set the wings of their empire ablaze, and watch the system their power relies on come to a grinding halt and come crashing down around them," Anonymous stated in a YouTube video announcing the campaign. "We must strike at the heart of their empire by once again throw a wrench into the machine, but this time we face a much bigger target -- the global financial system. This time our target is the Global Banking Cartel."

On May 3, the hackers briefly took down the website for the Bank of Greece, though bank officials said the attack didn't cause any damage. "The attack lasted for a few minutes and was successfully tackled by the bank's security systems," an official told Reuters. "The only thing that was affected by the denial-of-service attack was our website."

Other targets included the Central Bank of the Dominican Republic on May 3, the Central Bank of Cyprus on May 4, the Central Banks of the Netherlands and the Maldives on May 5, and the Guernsey Financial Services Commission on May 6.

Rene Paap, security evangelist at A10 Networks, told *eSecurity Planet* that the attackers only need to take a bank's website down for a few minutes to make their point. "The attack itself was the message, and you can be sure the banks heard it loud and clear," he said.

"DDoS attacks are cheap, easy to launch and can come from anywhere," Paap added. "National banks should be tightening their DDoS defenses, including against multi-vector DDoS attacks. This is just the beginning."

ΣΥΝΔΕΣΜΟΣ
ΤΡΑΠΕΖΩΝ ΚΥΠΡΟΥ

Ανακοίνωση του Συνδέσμου Τραπεζών Κύπρου
αναφορικά με απάτη από το τηλέφωνο, ηλεκτρονικό ταχυδρομείο και Διαδίκτυο

Ο Σύνδεσμος Τραπεζών Κύπρου θα ήθελε να επιστήσει την προσοχή στους πελάτες όλων των τραπεζικών ιδρυμάτων στην Κύπρο, σχετικά με απόπειρες υποκλοπής προσωπικών δεδομένων (Phishing Attacks).

Πως γίνονται οι απόπειρες υποκλοπής;
Απατεώνες τηλεφωνούν σε άτομα στην Κύπρο προσποιούμενοι ότι είναι υπάλληλοι τραπεζών και ότι ζητούν να εξακριβώσουν τα στοιχεία του λογαριασμού τους, όπως αριθμός λογαριασμού, κωδικοί πρόσβασης και στοιχεία ταυτότητας, προφασιζόμενοι διάφορους λόγους.

Ένας άλλος τρόπος που χρησιμοποιούν οι απατεώνες είναι η αποστολή πλαστογραφημένων ηλεκτρονικών μηνυμάτων (e-mails) μέσω ηλεκτρονικού ταχυδρομείου, σε άτομα στην Κύπρο. Με τα μηνύματα αυτά, που φαινομενικά προέρχονται από την τράπεζα του πελάτη, οι απατεώνες προφασίζονται διάφορους αληθοφανείς λόγους, όπως θέματα ασφάλειας, απάτης στον κυβερνοχώρο και ανανέωσης των στοιχείων του πελάτη. Με τα μηνύματα προτρέπονται οι παραλήπτες να επισκεφθούν κάποια ιστοσελίδα-μαϊμού μέσω συνδέσμων "link" για να πληκτρολογήσουν τους κωδικούς πρόσβασης τους σε ηλεκτρονικές τραπεζικές υπηρεσίες στο Διαδίκτυο. Οι ιστοσελίδες-μαϊμού, είναι ιστοσελίδες που ιδρύουν οι απατεώνες και μοιάζουν με αυτές των τραπεζών.

Τι συμβαίνει όταν κάποιος πέσει στην παγίδα;
Στην περίπτωση που κάποιοι παραλήπτες των μηνυμάτων αυτών πέσουν στην παγίδα και αποκαλύψουν τα στοιχεία τους τηλεφωνικώς ή στην ιστοσελίδα-μαϊμού, οι απατεώνες χρησιμοποιούν τα στοιχεία ταυτότητας και/ή τους κωδικούς πρόσβασης για να κλέψουν χρήματα από τους λογαριασμούς των πελατών και να τα μεταφέρουν σε δικούς τους λογαριασμούς στην Κύπρο ή στο εξωτερικό.

Νέο είδος Ιού με την ονομασία Crypto–locker ή Simple-Locker

Στο πλαίσιο ενημέρωσης και προστασίας του κοινού από τους κινδύνους του διαδικτύου, σας ενημερώνουμε ότι, τελευταία αναπτύχθηκε ένα νέο είδος Ιού με την ονομασία Crypto–locker ή Simple-Locker.

Πρόκειται για Ιό ο οποίος μεταδίδεται μέσω ηλεκτρονικού ταχυδρομείου (email) ή μέσω μηνύματος (sms) που οδηγεί σε συγκεκριμένο ηλεκτρονικό σύνδεσμο (link) και όταν ενεργοποιηθεί, η συσκευή των χρηστών μπλοκάρεται.

Αυτό μπορεί να επηρεάσει και ηλεκτρονικούς υπολογιστές αλλά και «έξυπνα τηλέφωνα» τα οποία υποστηρίζονται με λειτουργικό σύστημα Android. Με την εγκατάσταση του στη συσκευή, σκανάρει όλα τα αποθηκευμένα αρχεία του χρήστη της (φωτογραφίες, ταινίες, έγγραφα κλπ) και στη συνέχεια την κλειδώνει κρυπτογραφώντας τα αρχεία της

Μετά την ενεργοποίηση του Ιού και αφού μπλοκαριστεί η συσκευή έρχεται ένα νέο μήνυμα από τον δράστη και σε καλεί να πληρώσεις ένα ποσό (το οποίο κυμαίνεται από 100 μέχρι 2000 ευρώ) είτε με την χρήση u-cash (κάρτα πληρωμής) είτε μέσω εμβάσματος σε λογαριασμό στο εξωτερικό. Τις περισσότερες φορές ακόμα και εάν πληρώσεις δεν ξεμπλοκάρεται η συσκευή.

Καλούνται οι πολίτες που κατέχουν κινητά τηλέφωνα και tablets με λειτουργικό σύστημα ANDROID, να είναι ιδιαίτερα προσεκτικοί και να λαμβάνουν τα ακόλουθα μέτρα προστασίας της συσκευής τους για την αποφυγή προσβολής της από τον προαναφερόμενο ιό. Συγκεκριμένα:

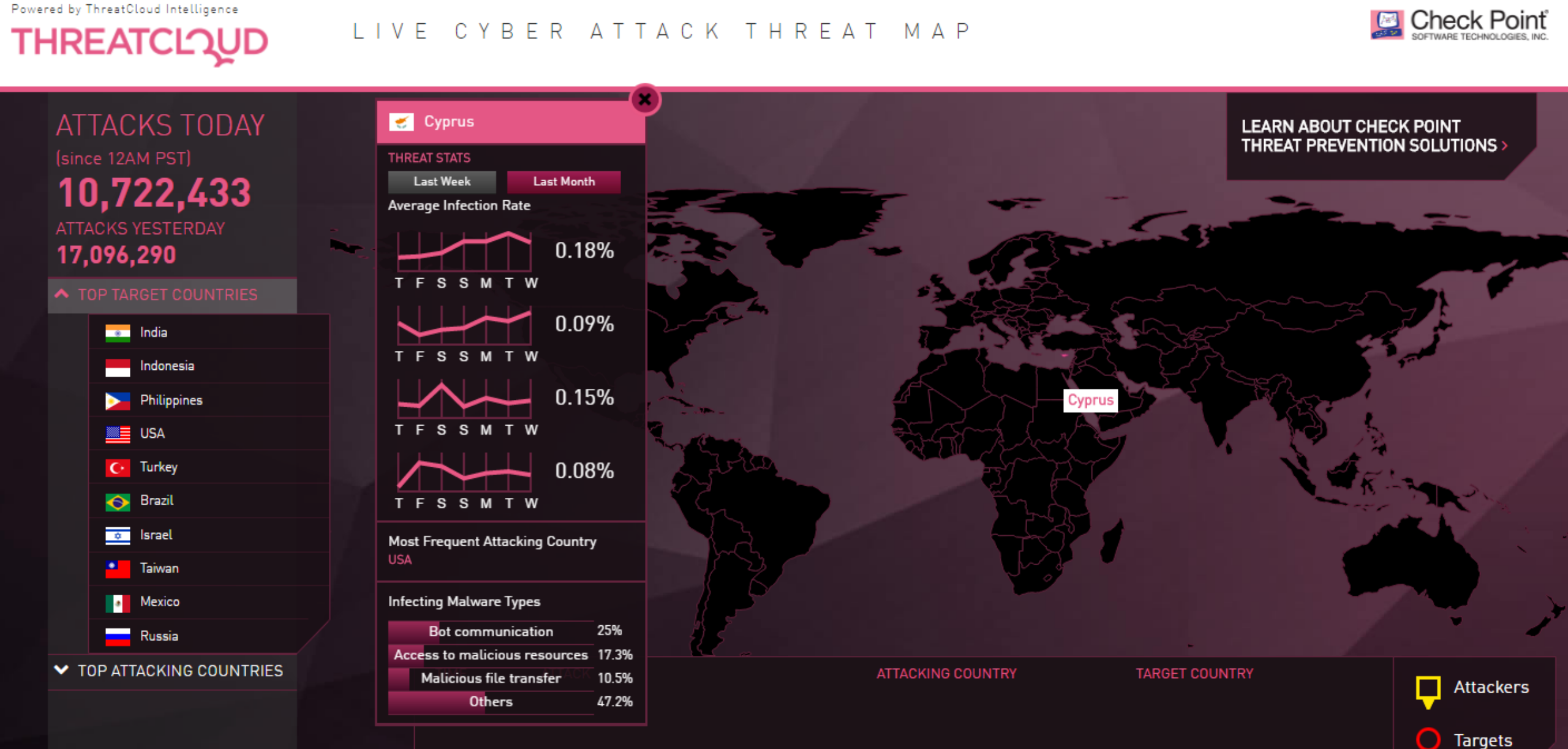
Να ελέγχουν και να έχουν πάντοτε ενημερωμένη την έκδοση του λειτουργικού συστήματος ANDROID.

Να δημιουργούν αντίγραφα ασφαλείας των αρχείων της συσκευής τους (backup) σε τακτά χρονικά διαστήματα.

Να χρησιμοποιούν εφαρμογές ασφαλείας όπως ένα antivirus, το οποίο πρέπει να είναι πάντοτε ενημερωμένο.

Truths of Life

Cyprus is part of the “Global Threat Map”



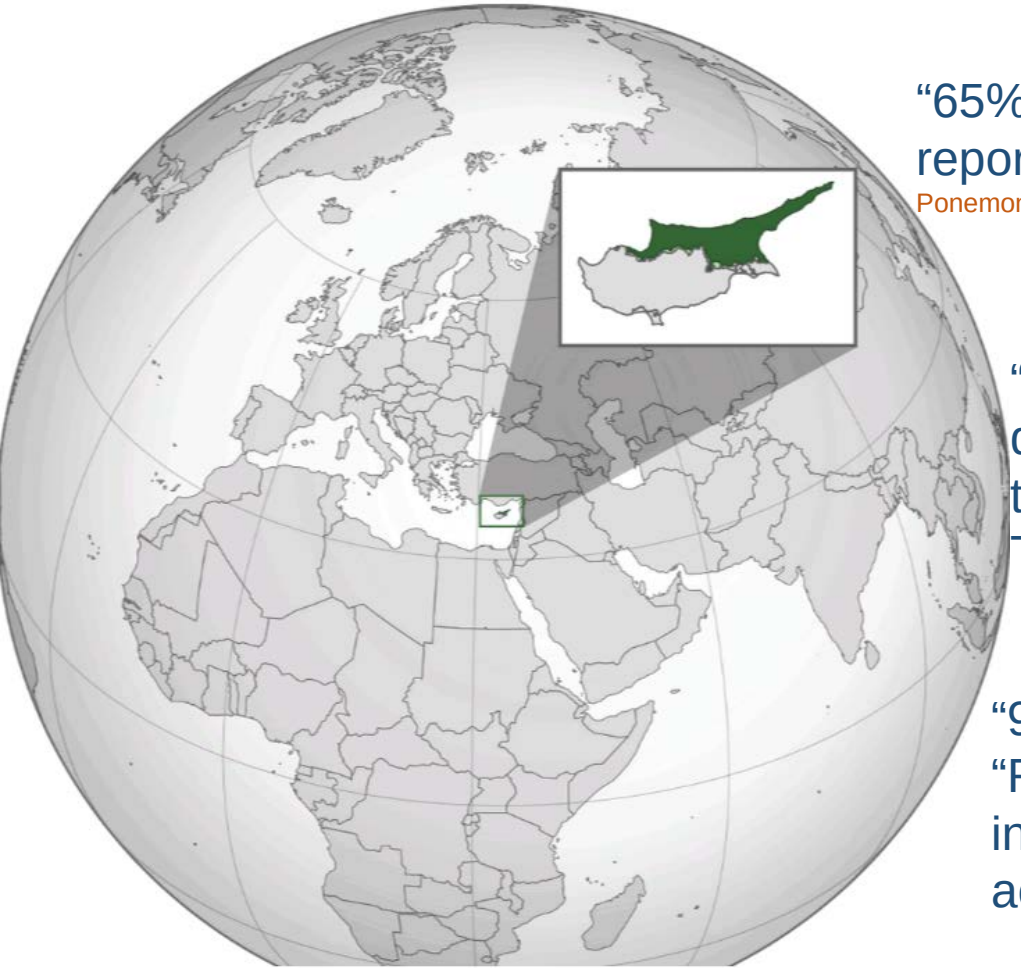
It’s no secret that CEOs across North America and Europe have been marshaling forces for **digital transformation** in a high-stakes battle to *ward off ambitious insurgents*, *maintain market share* and *address the changing demands of today’s customers*. This **is a once-in-a-generation challenge for any business leader**, but it’s not the whole story.

Behind the scenes, a fourth imperative is being added to the list of transformation considerations—***combating modern cybercriminals***.

Forbes Insights, Enterprises Re-Engineer Security in the Age of Digital Transformation

Attacks will come from all directions—moving both up and down an organization's stack and between co-located businesses. Credentials and authentication systems will continue to be the most vulnerable point of attack, so cybercriminals will work hard to steal credentials, especially admin credentials because those can provide the broadest access.

McAfee Labs 2017 Threats Predictions, November 2016



Cloud → Beyond Cyprus: No longer protecting the castle

"Continued rapid growth in the use of cloud services means that those services will become increasingly valuable as targets of attack."

McAfee Labs 2017 Threats Predictions, November 2016

Are NDAs enough?

"65% of companies that reported sharing customer data with a partner also reported a subsequent breach through that partner."

Ponemon Institute, *2014 Cost of a Data Breach Study*

DDoS: A National Security Threat?

"Hackers have staged cyber attacks on three Greek banks and demanded a ransom in bitcoin to stop their disruption … hackers blocked the internet banking activity of three Greek lenders for several hours last Thursday." ZDNet, *Armada Collective makes ransom demands on Greek banks*

Phishing & Ransomware Get Worse in 2017

"91% of cyber attacks begin with spear phishing" Berkeley Research Group, 11/2015

"Ransomware will adopt the good old tactic of computer worms, which internally propagate inside a network…to infect multiple hosts and seek access to expose sensitive data Cloud28, *2016 in review & phishing preditcions for 2017*

Cybercrime knows no borders

Cybersecurity Challenges of Financial Institutions ~~in Cyprus~~

Empowering Innovation: Transforming Information Security for Business Agility

The financial services industry has a long history of providing exceptional value and deep confidence in a world of risk. Today, the intense competitiveness of financial services demands a constant search for cost-effective ways to improve performance and deliver new, innovative products and services to meet customer demands while retaining loyalty and trust. However, as financial services organizations forge new initiatives to drive business growth they are navigating a landscape marked by numerous challenges.

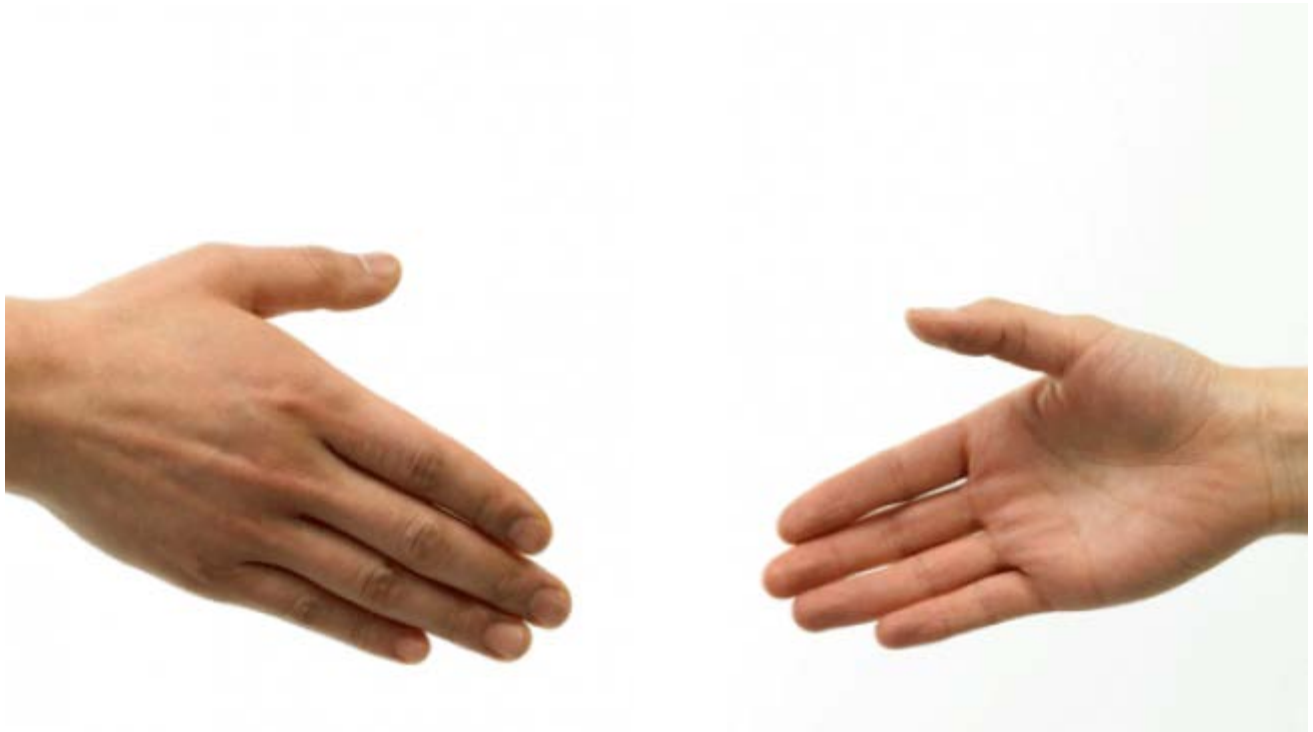
- New regulations that have imposed stringent financial and consumer protections are increasing regulatory compliance risks.
- Fragmentation at the line-of-business level and siloed business operations are hampering collaboration and innovation.
- Generational changes in the customer base and changing consumer behavior is driving demand for new services and product delivery models.
- Digital competitors that have already made their mark in serving customers who value convenience and innovation over personalized service are encroaching on market share and accelerating the need to "go digital."
- The recent financial crisis and slow recovery has slowed the pace of IT investments.
- Escalating and increasingly sophisticated cyber attacks are impacting financial services firms and eroding consumer trust.

To be trusted is a greater compliment in this life than being loved.

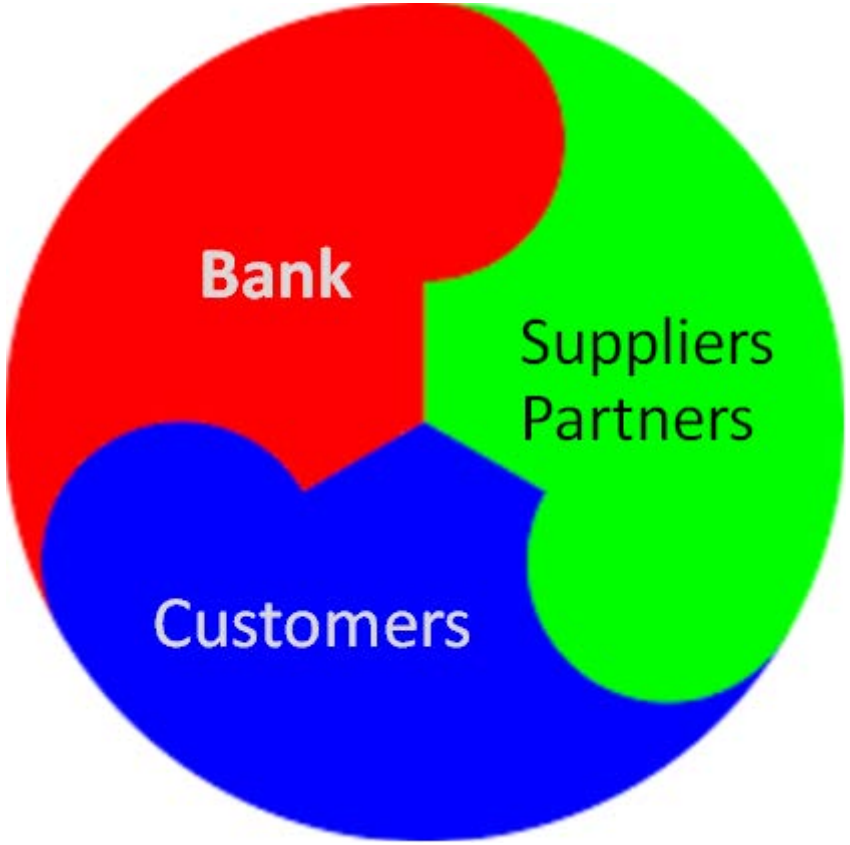
-George MacDonald

There is no relationship of one person.

There is no business of one person.



Love all, trust a few, do wrong to none.
-William Shakespeare



What binds altogether?

TRUST

TRUST Quiz– How much do you trust yourself?

A racket and a ball cost $1.10 in total.

The racket costs $1 more than the ball.

How much does the ball cost?

ball $0.05 + racket $1.05 = $1.10

Daniel Kahneman, winner of the Nobel Prize and author of *Thinking, Fast and Slow*

Knowing the person who offers to help and being aware that he/she cares to support you is just not enough.

$$\text{Trust} = \frac{\text{Credibility} + \text{Reliability} + \text{Intimacy}}{\text{Self-orientation}}$$

· *Credibility* is about others believing in you: your words, intentions, qualifications, and actions.

· *Reliability* is about others feeling that they can rely on you: you will support them as required.

· *Intimacy* is about how comfortable we feel to entrust someone with something. (personal relationship)

· *Self-orientation* is how much you show that you care about others and that you are not entering into a trust relationship to satisfy solely your personal interests.

"The Trust Equation," book *The Trusted Advisor*, David Maister and Charles H. Green

TRUST is a choice; a decision to undertake a RISK

RESPONSIBILITY = RESPONSE + ABILITY

RESPONSIBILITY = ability to choose your response

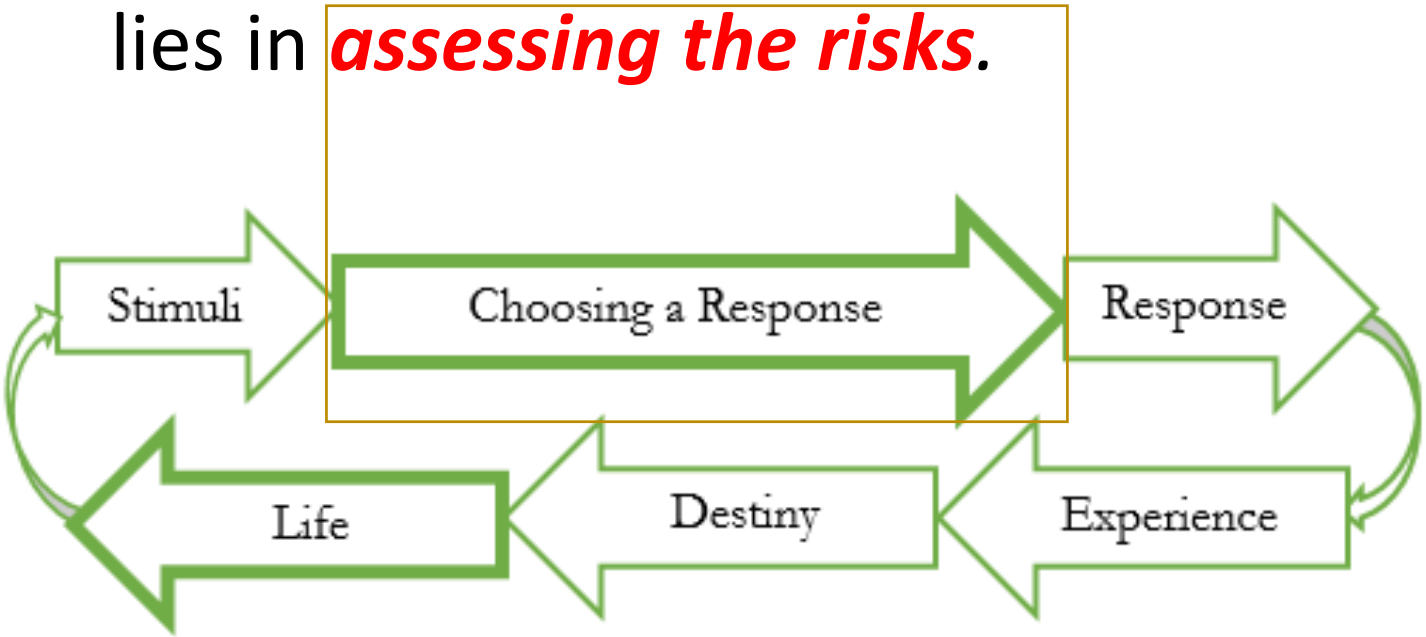
People, even yourself, will not always meet your expectations.

The natural way to move forward is to trust

&

The comfort you need to make a decision

lies in ***assessing the risks***.



It is not only what we do but also what we do not do that we are accountable.

-Moliere

Thank you