Information Security on Digital World

18 May 2018

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Agenda

About BKM
 Cyber Security (Concepts, Threats, Risks, Preventions)
 Cyber Crimes
 How to Protect from CyberCrime

Section 1: About BKM

Who is BKM?

- The Interbank Card Center (BKM) was established in 1990 with the partnership of 13
 public and private Turkish banks for the purpose of providing solutions to the common
 problems and developing the rules and standards of credit and debit cards in Turkey,
 within the card payment system.
- The main activities of BKM are;
 - Carrying out the authorization operation between the banks,
 - Developing the procedures applicable to the banks in the credit card and debit card sector,
 - Forming the domestic rules and regulations,
 - Making efforts in relation to provision of standardization and taking the relevant decisions,
 - Establishing relations with the international organizations and commissions and representing the members
 - Executing the ongoing bank operations from a single central operation site in a more secure, fast and cost-effective manner
 - BKM Express (e-Wallet),
 - Turkish Payment Systems TROY



Who is BKM?

- In 1993,
- The Switch System was initiated with the aim of settling inter-bank domestic credit card and debit card authorization,
- Opening the ATM and POS system networks of the Turkish banks to the service of the customers, providing connection to the international communication networks such as Visa Base I and Europay EPS-NET from single point, and enabling clearing of the debit cards issued by the Turkish banks.
- Following activation of the advanced-technology-product second phase of BKM Switch System in 1999, the operational capacity was significantly increased compared to the former system and our members were provided with uninterrupted service with full productivity.



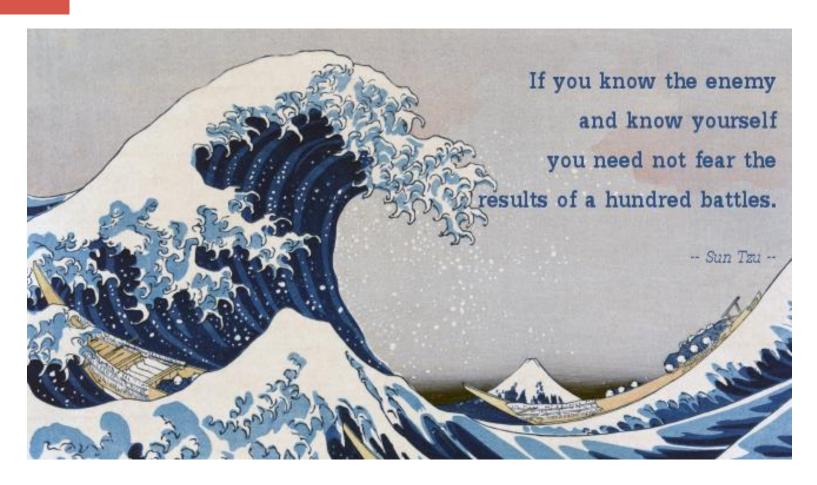
Section 2:

Cyber
Security
(Concepts, Threats, Risks, Preventions)



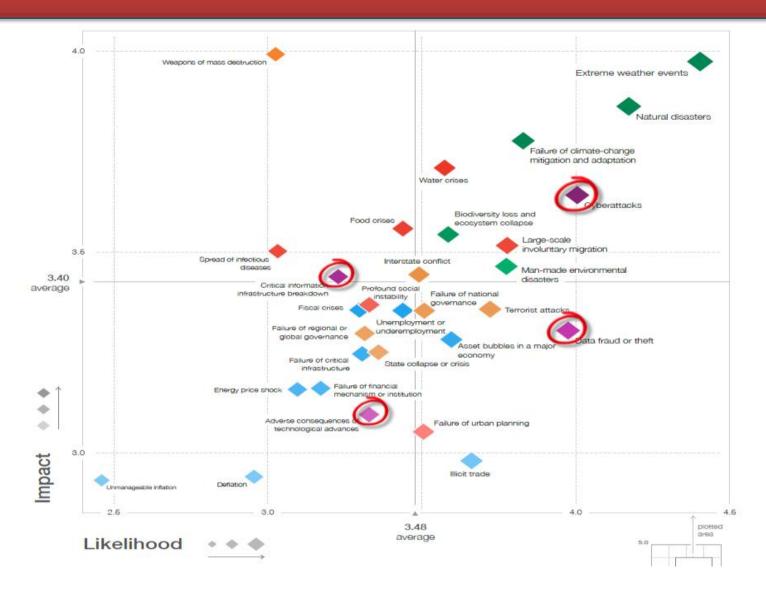
Starting Point

Know the enemy

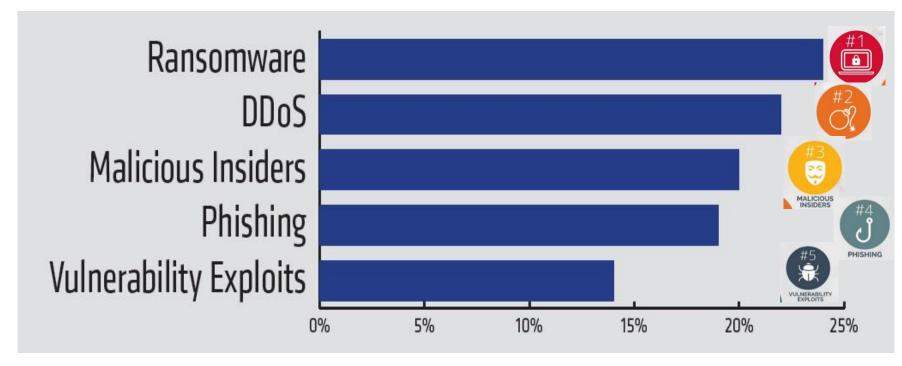


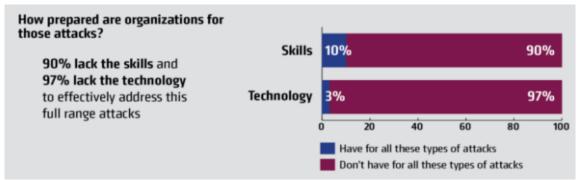


The Global Risks Landscape 2018 - Technological Category



Cyber Security – Top 5 Cyber Threats - 2017





Starting Point

Know the enemy





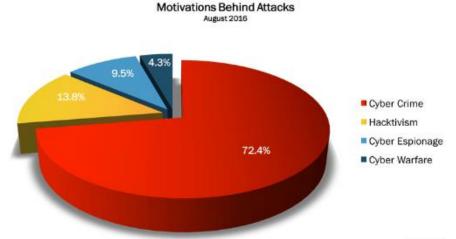
The Motivation Behind Targeted Cyber Attacks

Cyber Crime: When a cyber attack is used to steal money (Siber saldırıların büyük bir çoğunluğu parasal kazanç amaçlı yapılıyor.)

Hactivism: When one uses cyber attacks to promote political agendas.

Cyber Espionage: When a cyber attack is used to steal specific information. (Kişilerin bilgilerine ulaşmak ve ülkeler arası mücadele amaçlı yapanlara da rastlanıyor.)

Cyber Warfare: When a cyber attack is used as a form of terrorism against a government. (Ulusal güvenlik ve ulusal çıkarlar)

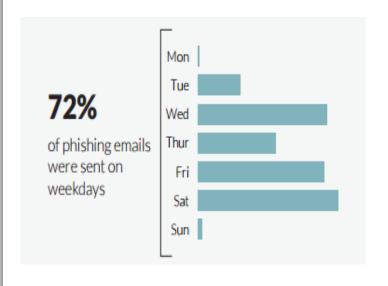




Social Engineering – Sosyal Mühendislik

- Phishing (Oltalama): Bilindik sitelerin kopyalarını yaparak bu siteler üzerinden bilgi çalma.
- Bire-bir İkna: Telefon vs ile kullanıcıyla iletişime geçerek kişisel bilgilerin alınması
- Güven kazanarak bilgi edinmek : Bir başkası yerine geçerek, karşısındakinden bilgiler alma.





Ransomware (Fidye Yazılımları)

WANNACRY RANSOMWARE



WannaCry has been making headlines but ransomware is nothing new right? WannaCry is a much more aggressive variant. While you may be internet savvy, if a user on your network gets infected and your machine is not patched, you may get infected and encrypted as well.

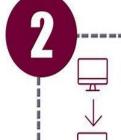
CR&T recommend immediate patching of computers to protect against this particular variant and to test backup procedures as a more general protection against all types of encryption malware.





1 - A MALICIOUS EMAIL

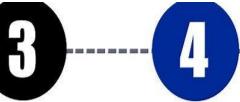
An email either with a malicious attachment or linking to a malicious website is clicked by a user.

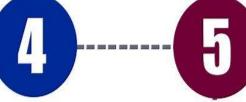


2 - INFECTION SPREADS

Most ransomware stops here and encrypts the user's computer. WannaCry instead uses a Windows Exploit to spread to other network computers. This exploit (CVE-2017-0144) affects from Windows XP through to Windows 10, including Windows Server editions. This means that one computer can encrypt the entire network, regardless of their permissions on other computers.









3 - ENCRYPTION BEGINS

The encyption routine can take as little as 28 seconds to encrypt a single computer.







Along with security software and patch management, a strong backup practice is an essential part of ransomware prevention. In fact nowadays more backup restores are due to ransomware infections than traditional disaster recovery reasons.







SOURCES

https://technet.microsoft.com/en-us/library/security/ms17-010.aspx CREATED BY

David Graham - Computer Research & Technology (team@crt.net.au)

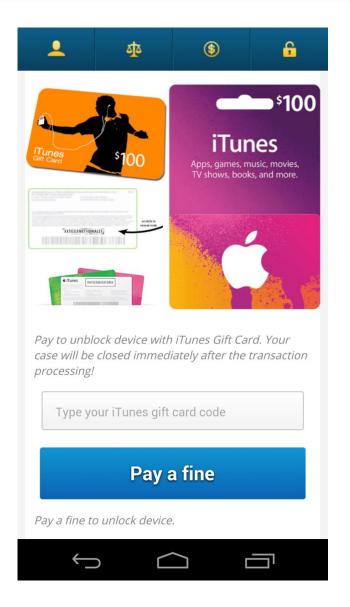


Ransomware – Computer



Ransomware – Mobile





Ransomware – More examples



We will not respond immediatly. After we reply, you must send at least 10 nude pictures of you. After that we will have to verify that the nudes belong to you. Once you are verified, we will give you your unlock code and sell your nudes on the deep web

Ransomware – IoT Devices

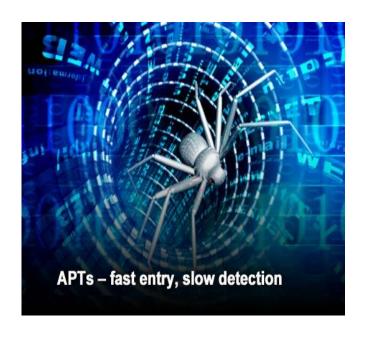


DDoS (Distributed Denial of Service Attack)



APT – Advanced Persistent Threat

- Türkçeye : Gelişmiş sürekli tehdit" veya "hedef odaklı saldırı" olarak çevrilen özel bir saldırı türüdür.
- Siber suçlular, Hacktivistler veya suç örgütlerinin motivasyon düzeyi : Birkaç deneme sonrası başka (kolay) hedefe yönlenme
- APT saldırıları : Amaçlarına ulaşana kadar saldırmaya devam ederler.



Tehdit sınıflandırması

Basit tehdit: "wifi hackleme" ve "facebook patlatma" seviyesinde 1-2 kaynak okumuş "meraklı", metodoloji bilmeyen, başlangıç seviyesi saldırganlardır.

Akıllı tehdit: Sürekli akıllı tehdit: İleri düzey teknik becerisi, hedef aldığı şirket veya kuruma sızmak için yürüttüğü sosyal mühendislik çalışmalarını yapan saldırganlardır.

ileri seviye tehdit : Sürekli İleri Seviye Tehdit : APT olarak adlandırdığımız tehdit türü (sürekli ileri seviye tehdit) en gelişmiş teknik beceri ve en yüksek seviyede motivasyon gerektiren saldırılardır.

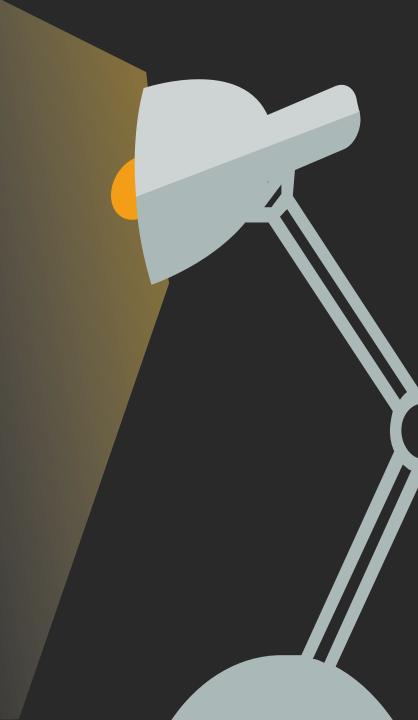
2018 Cyber Security Predictions

- 1. **Ransomware** will be the most dangerous threat to businesses and organizations worldwide.
- 2. Cybercriminals focus on cryptocurrencies.
- 3. **APT groups** pressure will increase.
- 4. Cloud security, a top priority for enterprises
- 5. A joint **international effort** to fight the cybercrime
- 6. **IoT devices**, a privileged target of hackers
- 7. The rise of **Mobile threats**
- 8. **Cyberbullying** ... the emergency continues (Siber dünya kullanılarak birilerine ve özellikle çocuklara baskı kurma olayları daha fazla görülecek)
- 9. Cyber-Insurance proposal will explode
- 10. **GDPR**, many companies, will be not compliance with new EU regulation by the **deadline** (25.Mayıs.2018)



Section 3:

Cyber Crimes



Web

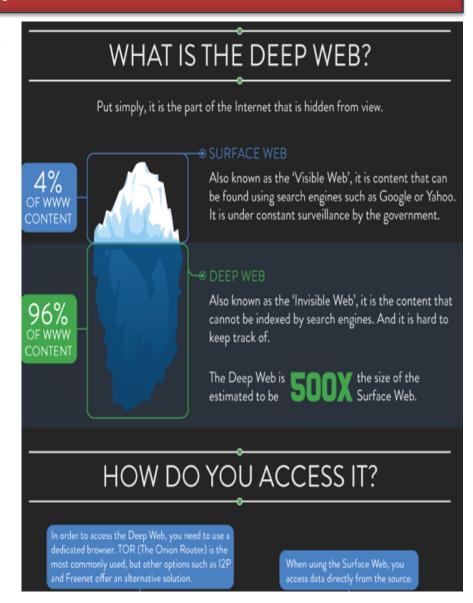


Deep Web



Deep Web

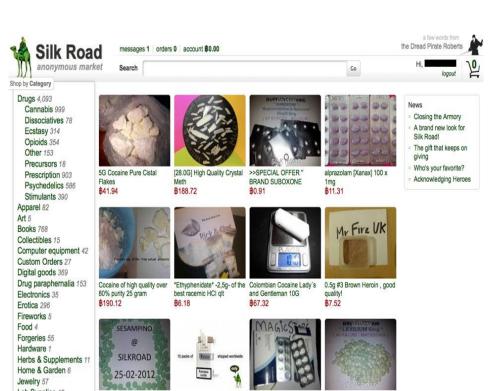
- Arama motorlarının (Google, Yandex, Bing, Yahoo) internet arama sistemlerinin ulaşamayacağı internet siteleri ve içerikleri..
- Devlet kurumlarının, özel şirketlerin ve kişisel kullanıcıların, tüm kullanıcılara açık olmayan arama motorları tarafından indexlenmeyen verilerin ve sitelerin bütününün bulunduğu yer..
- Public erişim istenmeyen ya da illegal bilgilerin bulunduğu alandır.
- Kendi içinde katmanları vardır.



Dark Web – Dark Net

Deep Web içinde illegal içeriklerin bulunduğu alana **Dark Web** denir.

- TOR Browser
- Illegal Information
- Drug Sales





Dark Web – Real World

Rent-A-Hacker

Products FAQs Register Login

Rent-A-Hacker

Experienced hacker offering his services!

(Blegal) Hacking and social engineering is my bussiness since i was 16 years old, never had a real job so i had the time to get really good at hacking and I made a good amount of money last +-20 years.

I have worked for other people before, now im also offering my services for everyone with enough cash here.

Prices:

Im not doing this to make a few bucks here and there, im not from some crappy eastern europe country and happy to scam people for 50 euro. Im a proffessional computer expert who could earn 50-100 euro an hour with a legal job.

So stop reading if you don't have a serious problem worth spending some cash at.

Prices depend alot on the problem you want me to solve, but minimum amount for smaller jobs is 200 euro.

You can pay me anonymously using Bitcoin.

Technical skills:

- Web (HTML, PHP, SQL, APACHE)
- C/C++, Assembler, Delphi
- Oday Exploits, Highly personalized trojans, Bots, DOOS
- Spear Phishing Attacks to get accounts from selected targets
- Basically anything a hacker needs to be successfull, if I don't know it, ill learn it very fast
- Anonymity: noone will ever find out who i am.

Social Engineering skills:

- Very good written and spoken (phone calls) english and german.
- If i cant hack something technically ill make phone calls or write emails to the target to get the needed information, i have had people make things you wouldn't belive really often.
- Alot of experience with security practices inside big corporations.

Ill do anything for money, im not a pussy :) if you want me to destroy some bussiness or a persons life, ill do it! Some examples:

Simply hacking something technically

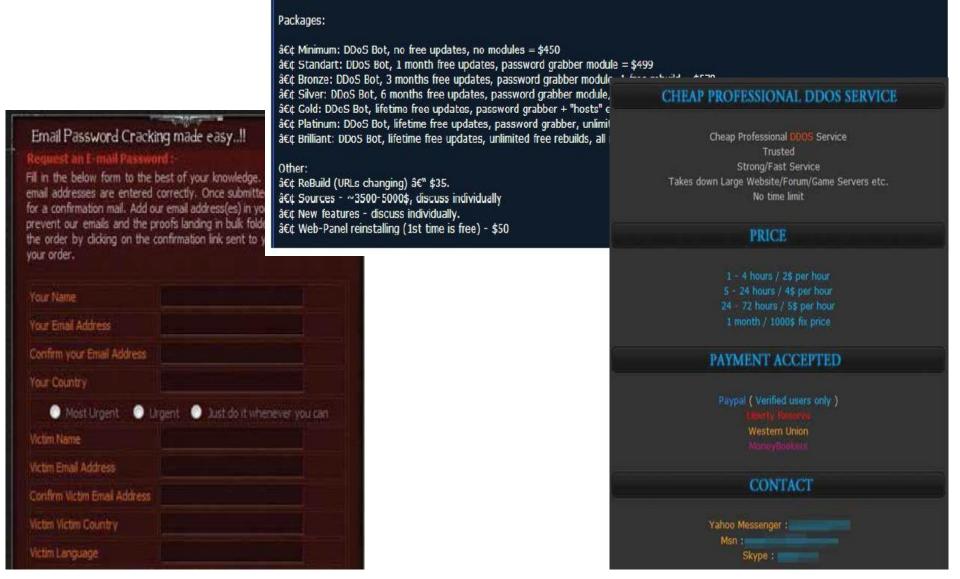
Causing alot of technical trouble on websites / networks to disrupt their service with DDOS and other methods. Economic espionage Getting private information from someone

Ruining your opponents, bussiness or private persons you don't like, I can ruin them financially and or get them arrested, whatever you like.

If you want someone to get known as a child porn user, no problem.

Product	Price	Quantity
Small Job like Email, Facebook etc hacking	200 EUR = 0.770 B	1 X Buy now
Medium-Large Job, runing people, espionage, website hacking etc	500 EUR = 1.924 8	1 X Buy now

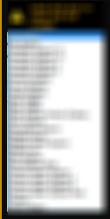
10-th version.



Deep Web – Forum Örnek

12 Farklı Büyük **Sigorta** Şirketinin Erişim Bilgileri

Konumuzda belirttiğimiz 12 firmanın satışını tekli satıştan toplu satışa geçirmiş bulunmaktayız.



İçerisinde 50 milyondan daha büyük bir data barındırmaktadır. Sistem 7/24 Günceldir. Dün doğan bebeği bile TC ile bulmanız mümkündür Aynı zamanda Tramer ve Mernis sistemide yanında verilmektedir. Sisteme girişler lisans anahtarı ve kişiye özel şifreler ile yapılmaktadır.

Programa giriş yapıldıktan sonra şirketin ismine tıklayıp giriş butonuna basmanız yeterlidir. Her şirketin Müşteri Sorgusu mevcuttur. Aradığınız bir kişiyi en kolay nasıl bulabileceğiniz hakkında detaylı bilgi tarafımızca ICQ üzerinden verilecektir.

Tramer sistemi içinden Hasarlı araç sorgulama, plaka sorgulama tarzı istediğiniz her işlemi gerçekleştirebilirsiniz. Kafanıza koyduğunuz bir ismi bulmanız 3 dakikadan fazla sürmeyecektir.

Plaka yazarak TRde bulunan tüm araçları öğrenebilirsiniz ve detaylı kimlik bilgilerine rahatlıkla erişebilirsiniz.

Genel olarak bilgiler;

Ad, Soyad, Tc, Ana adı, Baba adı, Doğum Yeri, En güncel adresi, Telefon numarası, Kredi kartının ilk 8 ve son 4 hanesi, üzerine olan araç bilgileri vs.

Şeklinde listelenir. Dataların pek çoğu XML, PDF olarak çıkartılabilir. Şirketlerin tanesine günlük 500'e yakın yeni kişi eklenir ve bitmek üzere olan poliçeleri görebilirsiniz.

Bu sistemi kullanarak 3d gereksinimi olmadan istedi@iniz kadar sigorta yapabilirsiniz.

- Although priced in U.S. dollars, payments are often made using cryptocurrencies, such as Bitcoin or Monero, at the daily exchange rate equivalent values.
- These prices are taken from publicly accessible underground forums and dark web TOR sites. Closed, private forums tend to have even lower prices.
- We cannot verify if the goods are genuinely sold for the asked price, some of them might be fake offers.

2018 Pricelist – Credit Cards

Dumne

Single credit card	\$0.50-25
Single credit card with full details (Fullz)	\$1-40
Dump of magnetic strip track1/2 data (e.g. from skimming)	\$20-60
500 credit cards already used for fraud in the last week	\$1

Estimate of Prices (without PIN, with PIN, PIN and good balance)

Dumps		US			EU			CA, AU	1	Asia
Visa Classic	\$ 15	\$80		\$40	\$150		\$25	\$150	\$50	\$150
Master Card Standard		\$90			\$140			\$150		\$140
Visa Gold/Premier	\$25	\$100	\$200	\$45	\$160	\$250	\$30	\$160	\$55	\$150
Visa Platinum	\$30	\$110		\$50	\$170		\$35	\$170	\$60	\$170
Business/Corporate	\$40	\$130		\$60	\$170		\$45	\$175	\$70	\$170
Purchasing/Signature	\$50	\$120		\$70			\$55		\$80	
Infinite				\$130	\$190		\$60	\$200		\$190
Master Card World		\$140								
AMEX	\$40			\$60			\$45		\$70	
AMEX Gold	\$70			\$90			\$75		\$100	
AMEX Platinum	\$50									

Source: Internet Security Threat Report – Volume 23 – 2018 - Symantec



Accounts (User Name and Password)

Video and sound streaming accounts

Various services, more than 120+ available (gaming, food, shopping, etc.)

Online banking accounts

Online money accounts (depending on value and verification)

Retail shopping account

Cloud accounts

Hacked Gmail accounts

500,000 email accounts with passwords from data breaches

Hotel loyalty/reward program accounts with 100,000 points

Shopping loyalty accounts with cash points

VPN services

Online retailer gift cards
Restaurant gift cards

	Min Price	Max Price
Brazzers		\$1
Yahoo	\$0,7	\$1,2
Gmail	\$0,7	\$1,2
Dell	\$0,8	\$2
Uber	\$1	\$2
NetFlix	\$1	\$2
Walmart		\$2,5
Twitter	\$0,1	\$3

\$0.10-10 \$0.5-10

0.5-10% of value

\$10-100

\$5-50

\$5-10

\$0.1-5

\$90

\$10-20

\$2-7

\$1-10

15-50% of face value

15-40% of face value

Section 4:



How to Protect from CyberCrime

Shore up weak points

Password:

- Use a different password for each site
- Use Longer Passwords
- Use 2 Step Verification





Asset Management:

You cannot secure unknown.

Protect your data

Regulations:

- ISO 27001
- PCI/DSS
- COBIT
- Etc.



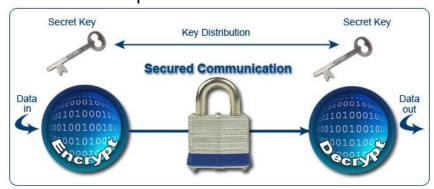
Tokenization Technology

Substituting a sensitive <u>data element</u> with a non-sensitive equivalent.



Encryption

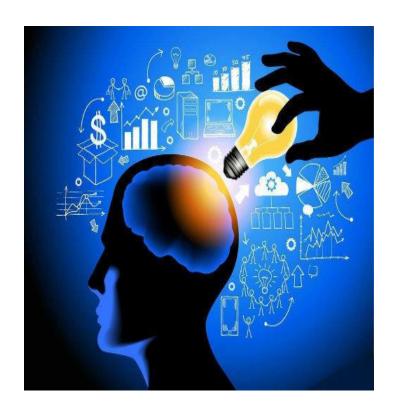
Encryption prevents unauthorised access to your data by keeping communication secure between the parties involved.



Educate employees

You cannot patch human:

- Take users phishing!
- Is the sender also the receiver?
- Hack yourself... Ethically.
- Passwords, passwords, passwords...
- Think before you link!
- Create an accessible cyber security plan.







Thank you Teşekkürler Təşəkkür edirəm







Bulent Muslu