

Role of Cybersecurity In Digital Transformation.

دور الأمن السيبراني في التحول الرقمي

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Outlines

- ▶ What Is Digital Transformation?
ما هو التحول الرقمي
- ▶ Digital Transformation Tools
أدوات التحول الرقمي
- ▶ Cybersecurity Definition?
تعريف الأمن السيبراني
- ▶ Key Roles of Cybersecurity
المهام الرئيسية للأمن السيبراني
- ▶ Methodology of Applying Cybersecurity
منهجية تطبيق الأمن السيبراني



“**70%** *of Digital
Transformation
Projects*
will fail”



- **DIGITAL TRANSFORMATION**

Leverage emerging technologies to build new business systems, business models, consumer & employee experience

- **DIGITALIZATION**

Improve business processes by leveraging digital technologies

- **DIGITIZATION**

Transition from analog to digital

Digital Transformation

التحول الرقمي

- Main Elements – عناصر ومكونات أساسية
- Tools – أدوات
- Domain and Pillars – نطاق وأعمدة رئيسية

Digital Transformation

التحول الرقمي

- Technology is one of the main elements of Digital Transformation
التكنولوجيا هي أحد أهم عوامل التحول الرقمي
- Technology can never survive without Cybersecurity
التكنولوجيا لا يمكن لها البقاء بدون الأمن السيبراني

Cybersecurity

الأمن السيبراني

- Is the practice of protecting systems, networks, and data from unauthorized access, use, disclosure, disruption, modification, or destruction.

- حماية الأنظمة المعلوماتية من الإختراقات و الدخول الغير مصرح به
- حماية البيانات والمعلومات ضد السرقة, الكشف, الإفشاء أو الإتلاف

Cybercrimes

الجرائم الرقمية

- Because the online world is so interconnected, everyone is a target
نظرًا لأن عالم الإنترنت مترابط للغاية ، فإن الجميع مستهدف
- If just one of your accounts gets breached, criminals can use it to breach others
إذا تم اختراق حساب واحد فقط من حساباتك ، فيمكن للمجرمين استخدامه لخرق حسابات الآخرين
- Criminals may target personal accounts and data to breach corporate ones, and vice versa
قد يستهدف المجرمون الحسابات والبيانات الشخصية لخرق حسابات الشركات والعكس صحيح
- Fraud and identity theft doesn't just affect an individual; it can affect your family, friends, coworkers, and business.
الاحتيال وسرقة الهوية لا يؤثر فقط على الفرد ؛ يمكن أن يؤثر على عائلتك وأصدقائك وزملائك في العمل وعملك

Global Cybercrime Damage by 2021



\$16.4

Billion per day

\$684.9

Million per hour

\$11

Million per minute

\$190,000

Per second

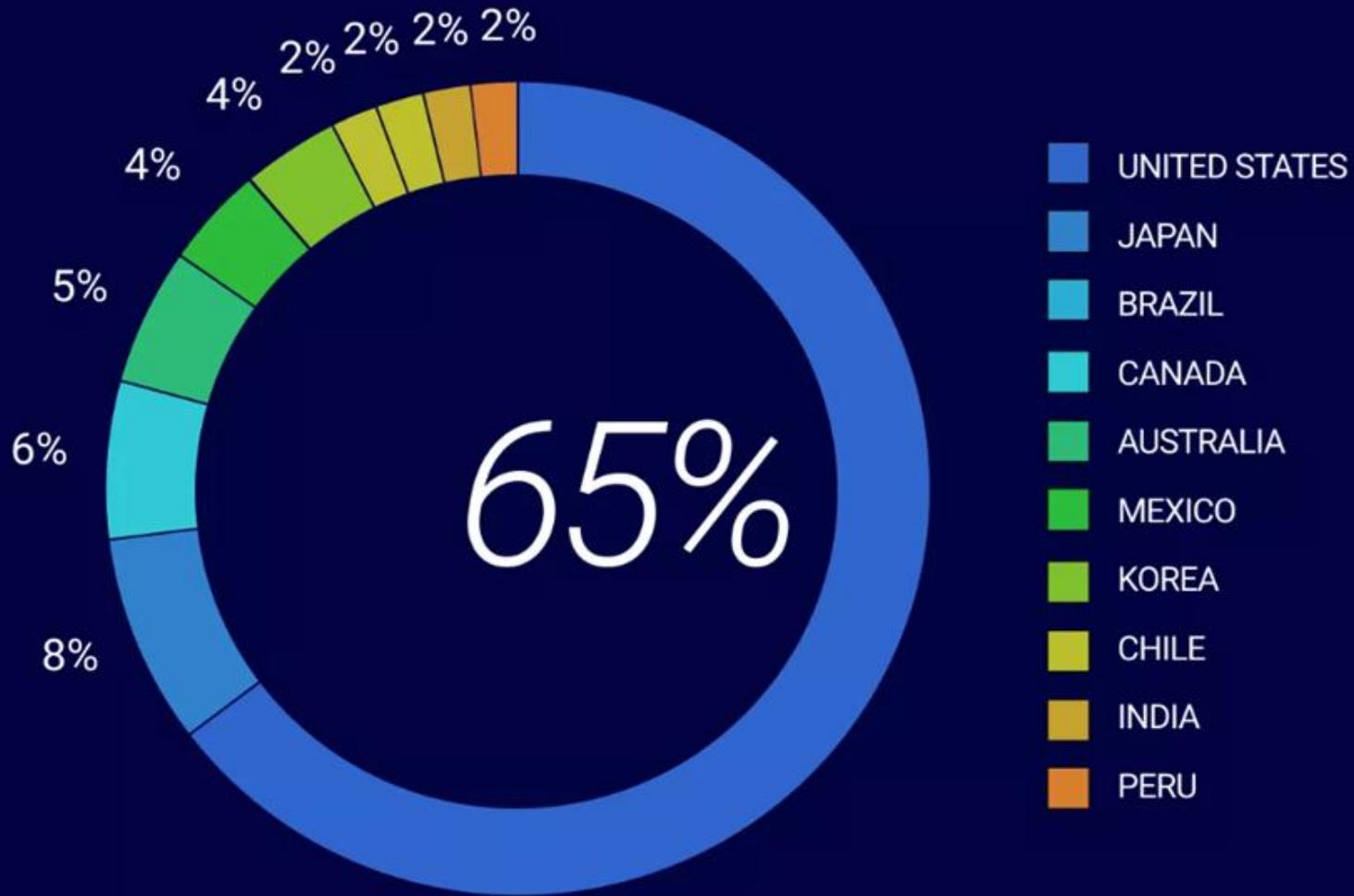
**DATA
BREACH**



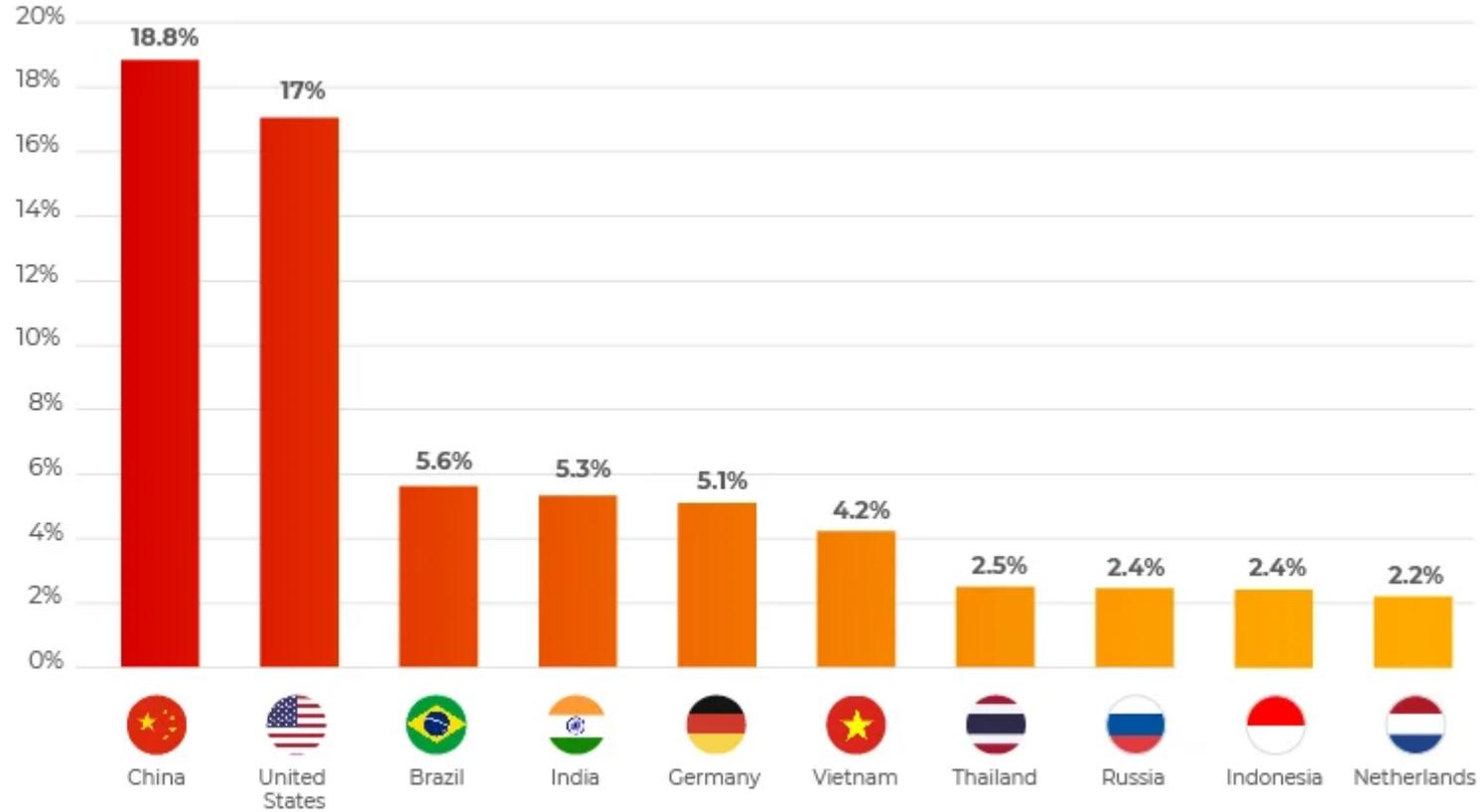
17 BIGGEST DATA BREACHES EVER



TOP 10 COUNTRIES EXPERIENCING CYBERATTACKS IN Q4



Highest 10
Countries of Being
attacked
دول عرضة 10 أكثر
للهجمات



Highest 10 Countries of Origin for Cyber Attacks

أكثر 10 دول كمصدر للهجمات

Cybercrimes (الرقمية) الجرائم السيبرانية



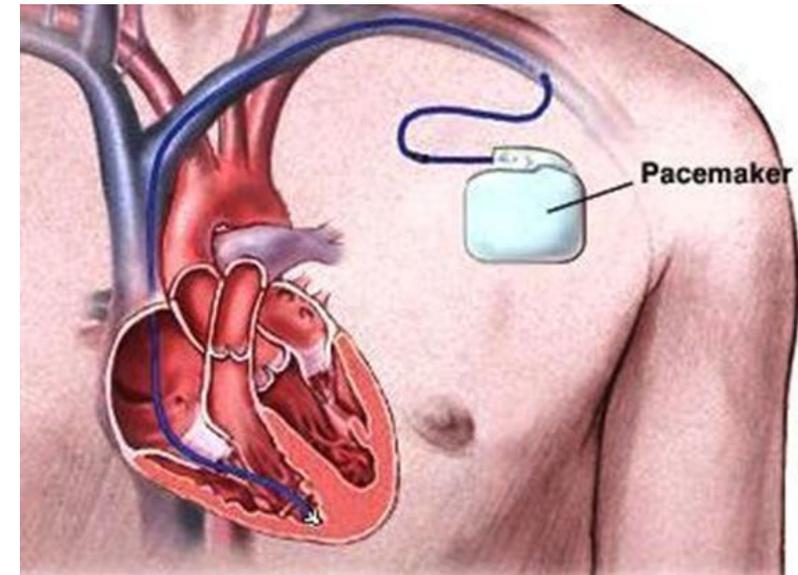
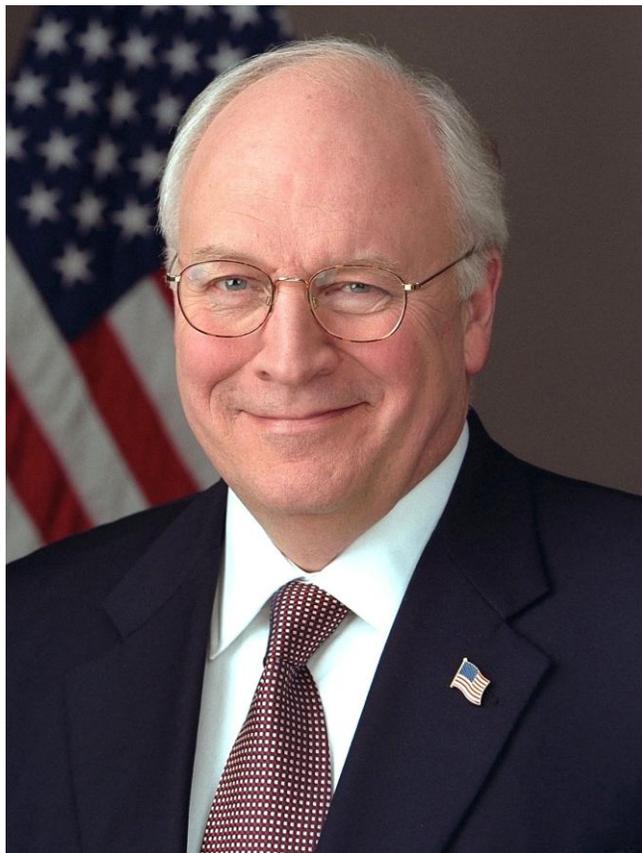


The WannaCry ransomware attack

In 2017, the WannaCry ransomware attack affected over 200,000 computers in over 150 countries. The attack targeted hospitals and other healthcare organizations, causing significant disruption to patient care.



Dick Cheney



Drug Infusion Pumps

مضخات العلاج



Medfusion 4000
Wireless Syringe Infusion Pump



Medfusion 4000

NEWS

Chrysler recalls 1.4 million hackable cars

by: [CNN Wire](#)

Posted: Jul 24, 2015 / 12:02 PM EDT

Updated: Jul 24, 2015 / 12:02 PM EDT



Jeep Cherokee Hacking Test

تجربة شيروكي في التحكم في السيارة عن بعد





United Airlines awards hackers millions of miles for revealing risks



Bristol Airport Attack 2018 (ransomware)

Ransomware Attack Hits Bristol Airport, Flight Display Screens Went Offline

By GURUBARAN S - September 17, 2018 0

هجوم فدية يضرب مطار بريستول ، وانقطعت شاشة عرض الرحلة في وضع عدم الاتصال



Flight No	Destination	Time	Gate	Status
FR 8254	Gdansk	→	15	Boarding
EZ46005	FARO	06:50	→ 3	Boarding
EZ46001	Alcanite	06:55	12	Boarding
BA1181	CDG (Paris)	07:00	34	Boarding
EZ4565	Newcastle	07:00	14	Boarding
EZ4663	Lisbon	07:00	31	Boarding
MT1404	Paris	07:00	9	Boarding
ER1075	Krakow	07:05	4	Boarding
TO4560	Moham	07:05	26	Boarding
TAN650	Tunis	07:05	2	Boarding
EZ4621	Edinburgh	8	Boarding	

Flight No	Destination	Gate	Status
010 EY 6015	Barcelona	7	Boarding
010 EY 6045	Tenerife	13	Boarding
010 EY 6153	Genoa	14	Boarding
010 EY 6189	Pisa		Boarding
010 TOW14	Antalya		Boarding
010 EY 6161	Amsterdam	25	Boarding
010 RYR 302	Dublin		Boarding
010 JTK 3201	Dublin		Boarding
010 RYR 1801	Aberdeen		Boarding
010 KLM 1000	Amsterdam		Boarding
010 EY 6041	Paris		Boarding

Marine Digital

National Information Loss

الهجمات الإلكترونية البحرية



FLORIDA - Published February 17

Florida water plant cyberattack: Senate Intel chair seeks answers

Senate Intelligence Chairman Mark Warner has sent a letter to FBI and EPA

By Stephanie Pagones, Jennifer Griffin | Fox News



Hack on Florida water facility exposes fragility of US infrastructure

FOX News national security correspondent Jennifer Griffin joins 'Special Report' with latest on cyberattack

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The New York Times

'Dangerous Stuff': Hackers Tried to Poison Water Supply of Florida Town

For years, cybersecurity experts have warned of attacks on small municipal systems. In Oldsmar, Fla., the levels of lye were changed and could have sickened residents.





HOW THE BIGGEST HACK OF 2020 WENT DOWN

solarwinds 

SWI
LISTED
NYSE



SOLARWINDS CYBERATTACK

- Treasury Department
- Commerce Department
- State Department
- Homeland Security
- Pentagon
- Department of Energy, Nuclear Security Administration
- FireEye - Cybersecurity firm
- Microsoft - Technology giant

Operation Olympic Games (2006-2012)

(1st formal offensive cyber campaign, against a country)

target !!
→



Started in 2006 Accelerated in 2009



In collaboration with
IDF Cyber Unit 8200

Iran's Industrial Control Systems



Role of Cybersecurity

دور الأمن السيبراني

- Protecting data and intellectual property
حماية البيانات والملكية الفكرية
- Ensuring the availability of systems and applications
التأكد من توافر الأنظمة والتطبيقات
- Maintaining the integrity of systems and data
الحفاظ على سلامة الأنظمة والبيانات
- Protecting against cyberattacks
الحماية ضد الهجمات السيبرانية





Methodology Of Applying Cybersecurity

منهجية تطبيق الأمن السيبراني

- Top Management Approval
الحصول علي موافقة الإدارة العليا
- Implement a security framework
التنفيذ من خلال إطار عمل
- Conduct regular security assessments
إجراء تقييمات أمنية منتظمة
- Train employees on cybersecurity
تدريب الموظفين على الأمن السيبراني

Cyber Security Frameworks





Cybersecurity Security Standards

- Standard Security Data Industry Card Payment (PCI-DSS)
- 27001:2013 ISO/IEC
- Health Insurance Portability and Accountability Act (HIPAA)
- Sarbanes Oxley Act (SOX)
- Federal Information Security Management Act (FISMA)
- General Data Protection Regulation (GDPR)
- Data Protection Act 2018 (DPA)



**ANY
QUESTIONS?**

THANK

YOU!

