

12 Ways
Multi-Factor
Authentication
can be Hacked
and How to Best
Defend Against It

Wednesday, June 22, 2022 Presented by:

Human error. Conquered.







## INTERWARE SYSTEMS



Presented by:
Marcus Ge, Head of GRC
Interware Systems



### ABOUT US

39th Year in Business



Cybersecurity



Digital Transformation



Cloud

Healthcare

**Retail Chains** 

Education

**Public Sector** 

Financial Institutions

Law Firms







### INTERWARE SECaS WITH A HOLISTIC APPROACH

#### **MDR Service**

- 24/7/365 SOC
- Following NIST SP800-61
- Vendor certified security analysts
- Endpoint monitoring, incident detection, response, remediation and containment

#### **GRC CONSULTING SERVICES**

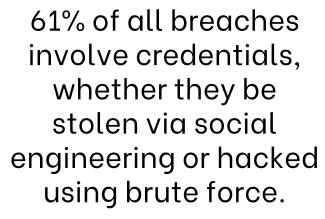


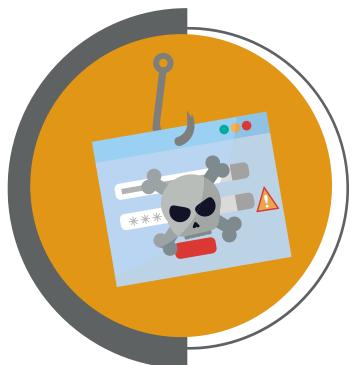
- Determine IS strategy
- Control objective and gap analysis
- Risk analysis
- Security policy build and review
- Cybersecurity awareness program



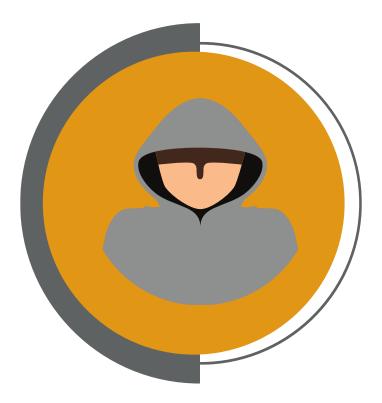
### THREAT LANDSCAPE







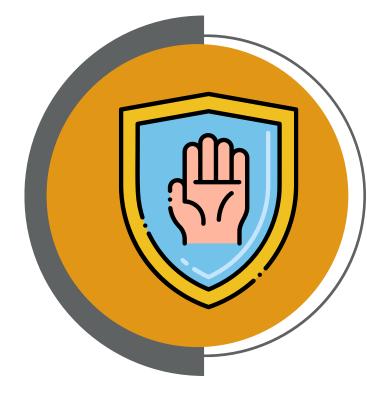
60% of mid-sized businesses that have asked their employees to work remotely experienced a cyberattack.



56% of those experienced credential theft.



48% experienced social engineering, such as phishing.



99% of IDSA's respondents who'd suffered an identity-related breach believe that these types of attack are preventable.



### CASE: SONY PICTURES - ATTACKED BY G.O.P.

 Guardians of Peace – allegedly a hacker group from North Korea





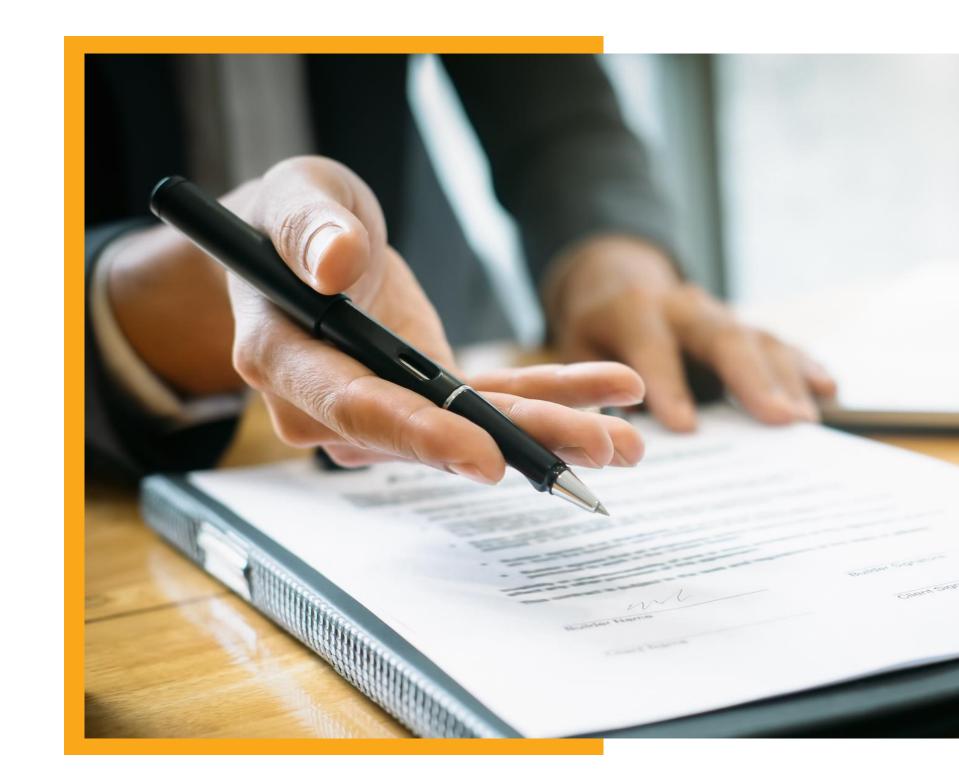
#### **LESSONS LEARNED:**

- Everyone is a target
- Put qualified and proactive people in information security roles
- Don't make a hacker's job too easy
- Security starts from management



## BUILDING GOOD POLICY

- It's difficult to build compliance to follow regulation.
- Security compliance is a requirement for all companies, users will always try to find a shortcut or to bypass it.
- It's more and more prominent in this landscape to have good credential practices.







### A MOVING TARGET

- Technology moves forward
- Moore's Law Passwords become more and more convoluted.
- In 2005, it took over 6 days to crack the password "secures1".
- 10 years later, it took 2 days.

Can anyone guess how long it would take today?





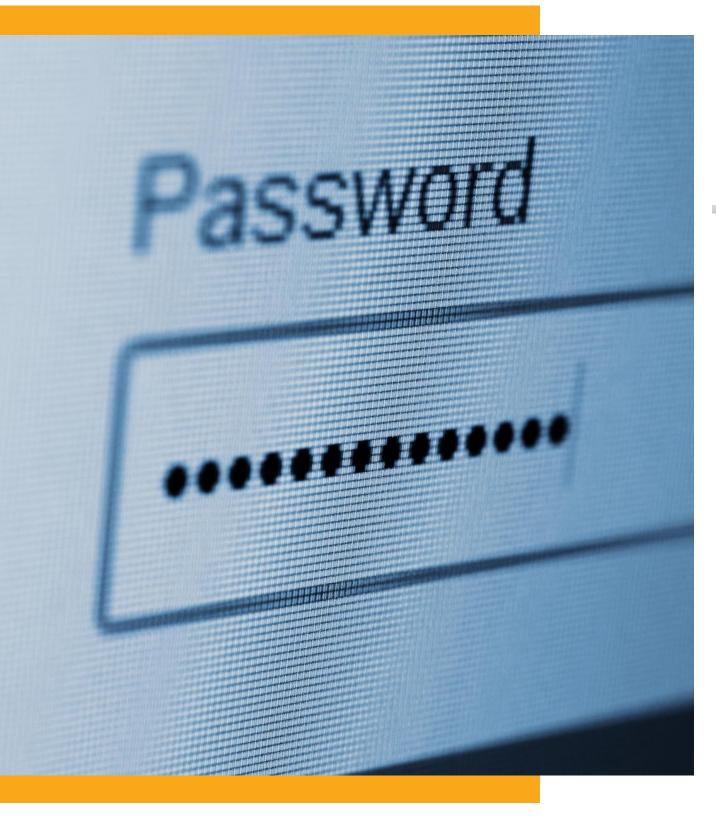




## HOW CAN WE PROTECT OURSELVES?

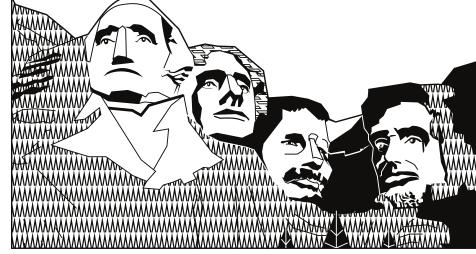
- Adding letters to your numbers / vice-versa
  - 123456789 = cracked 431 times in the blink of an eye
  - A23456789 = will be cracked when Oscar award winner Leonardo DiCaprio is 84 years old





## HOW CAN WE PROTECT OURSELVES?

- Combining ASCII
  - Password = cracked just under the time it would take for lightning to strike 2 times
  - P@ssw0rD = will be cracked in the same amount of time it took to carve Mount Rushmore
- Even this we do not recommend to our clients who truly want to protect themselves from risk
- Cyber insurance is a must have







## HOW CAN WE PROTECT OURSELVES?

- Implement Multi-Factor Authentication
- Everyone knows
- MFA is an added step, but a necessary one



### **DIVING INTO MFA**

From technical standpoint, let's analyze MFA. There are ways to defeat it.

#### You will learn:

- Ways to compromise
- Ways to circumvent
- Ways to implement it properly!









# INTRODUCING



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DATA-DRIVEN EVANGELIST