ARE VULNERABILITY SCANS MAKING YOUR NETWORKS MORE VULNERABLE?

Does continuous vulnerability scanning actually create more risk?

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WHO IS BRUCE MCCULLY

…and what the heck does he know about growing **M S P s**?

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GREW:

$8.5M

MSP

SOLD:

$1.3M

IN MRR IN 2019


NEW AT 6
MEDICAL RECORDS HELD HOSTAGE

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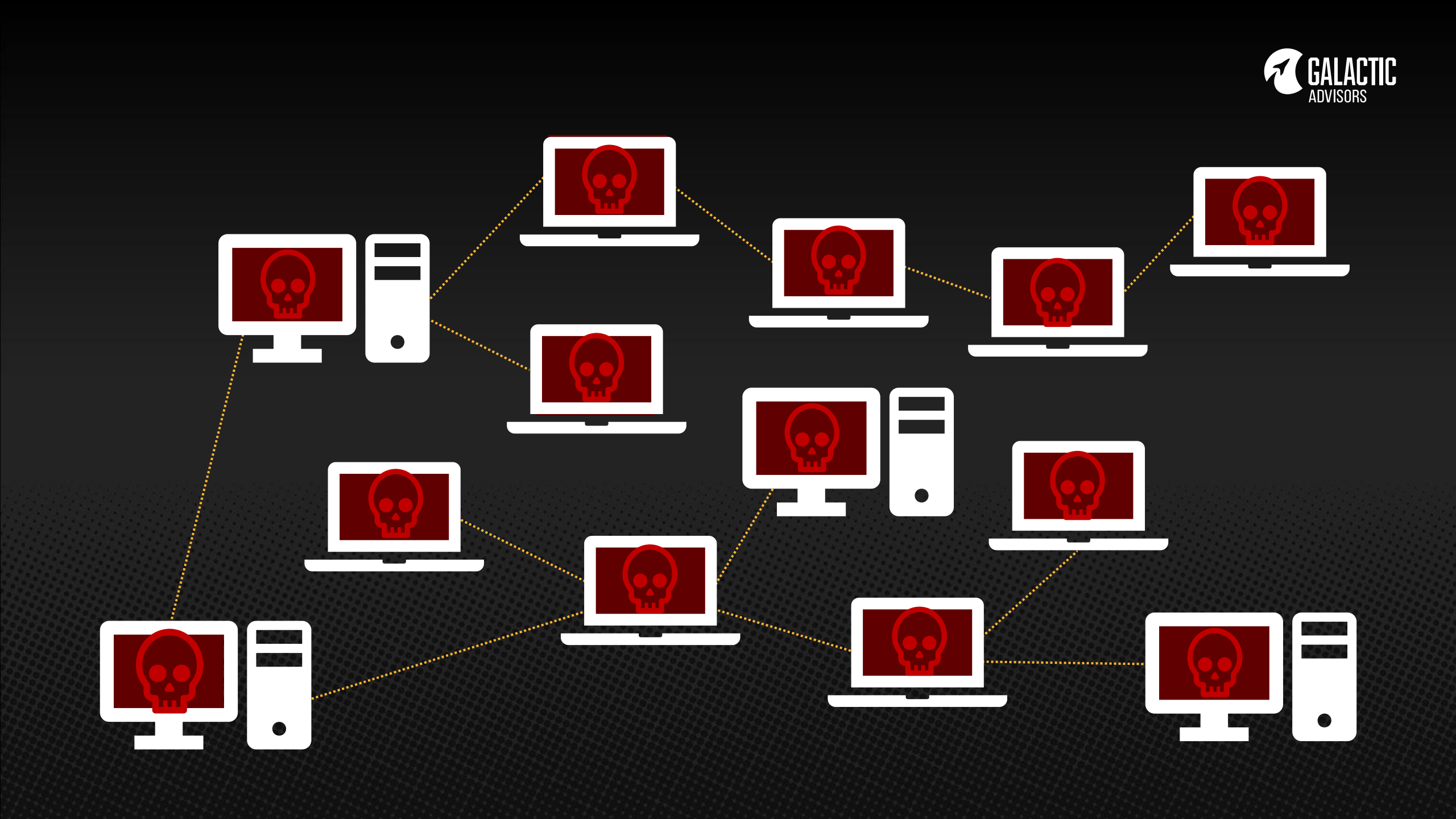
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GALACTIC ADVISORS

OUR COMMUNITY IS UNDER ATTACK

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1 MILLION

PEOPLE

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HOW WOULD YOU GET INTO A NETWORK?

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LINK

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80%

of the time hackers get administrator rights

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ARE THEY LANDING WITH ADMINISTRATOR RIGHTS?

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NOPE.

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GROUP POLICY PREFERENCE XML-FILES

SERVICE ACCOUNT BACKDOORS

LOST AUTO LAUNCH

HOW DO YOU GET ADMIN RIGHTS?

FILE PERMISSION ERRORS

UNATTENDED INSTALLS

LEGACY PROTOCOL ACCESSIBILITY

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ARE THESE VULNERABILITIES?

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NOT TRADITIONAL

PERMISSIONS

CONFIGURATIONS

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50%

of organizations had a ransomware incident in 2022

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2023 NOT LOOKING BETTER

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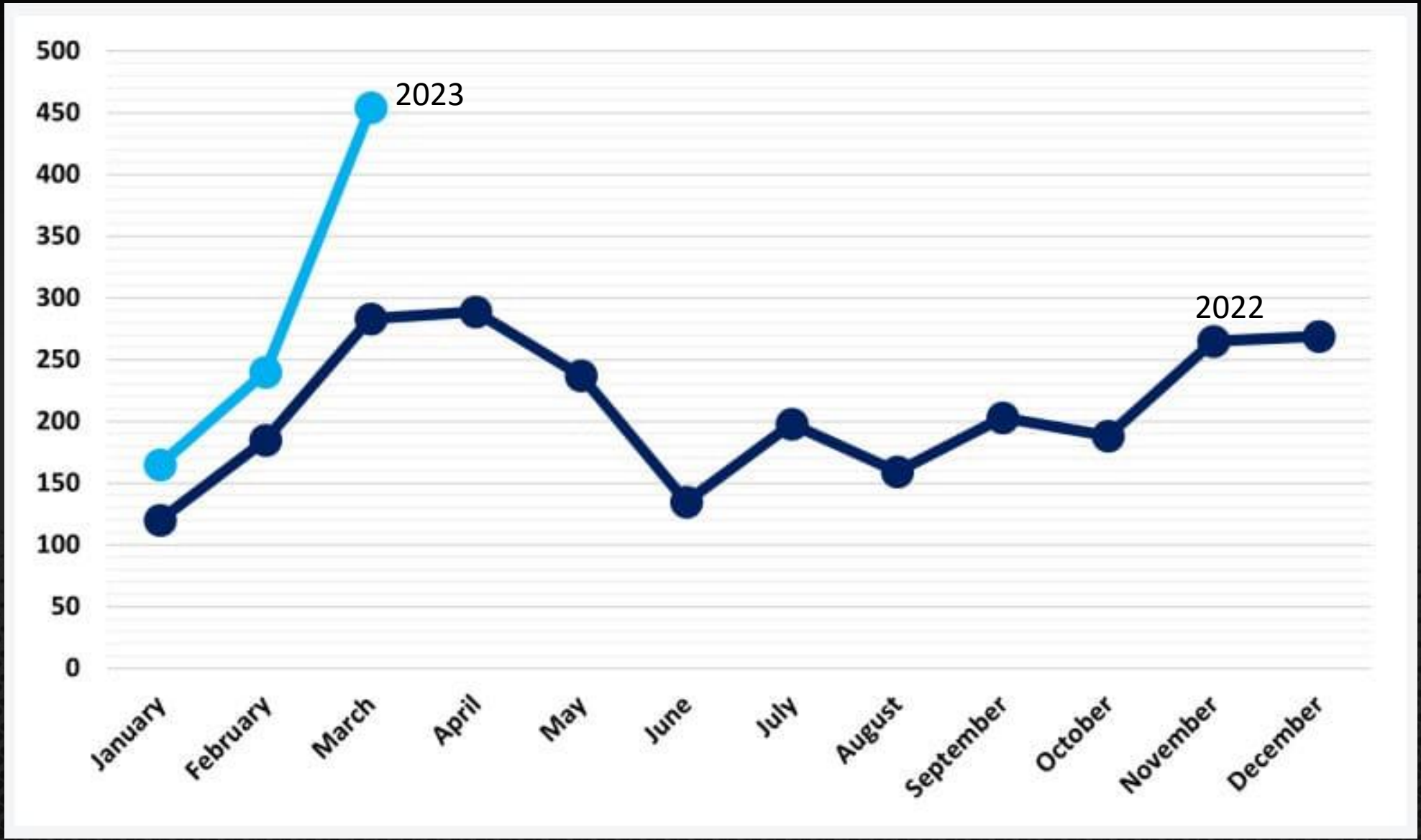
FIRST QUARTER NUMBERS SHOW RANSOMWARE IS ON THE RISE


500
450
400
350
300
250
200
150
100
50
0
2023
2022
January
February
March
April
May
June
July
August
September
October
November
December

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HOW DOES THIS HAPPEN?

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HUMAN ERROR

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1000%

Of Ransomware Events Are Caused By Human Error

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HOW DOES HUMAN ERROR HAPPEN?

WHAT CAN YOU DO ABOUT IT?

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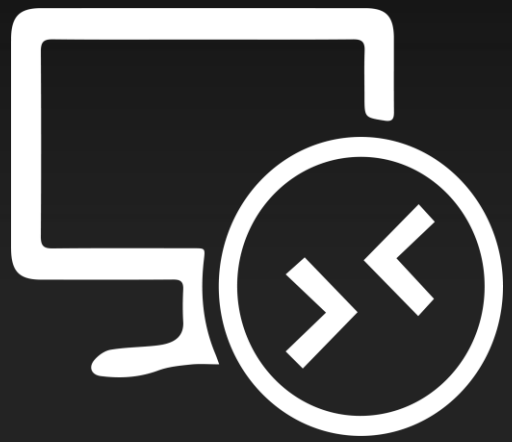

RDP

Rip-off

SQL Server Spanking

MFA

Misfiring

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A CALL FROM YOUR OUTSOURCED SECURITY OPERATIONS CENTER AT 12:31 AM SATURDAY MORNING

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SEEING A PROCESS THAT APPEARS TO BE ENCRYPTING FILES

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RUNNING ON MULTIPLE DEVICES

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THE SOC HAS ALREADY KILLED IT

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NOTICING PASSWORD ATTEMPTS FROM WITHIN THE NETWORK

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LOOKS LIKE SOMEONE IS EXFILTRATING YOUR NT.DIT FILE

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13 DAYS LATER

REVIEWING FORENSIC RESULTS

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THE ATTACKERS ACCESSED THE SYSTEM USING AN OPEN RDP PORT

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REMEMBER WHEN WE USED TO SAY:

SHUT THE FRONT DOOR

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AN ENGINEER OPENED RDP DURING AN AZURE SERVER MIGRATION

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THIS WAS BAD

WHY DID IT HAPPEN?

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DID THIS ENGINEER KNOW IT WAS BAD?

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YES

HE PLANNED ON CLOSING IT UP LATER

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TOO MANY INTERRUPTIONS TO CLOSE IT UP LATER

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YOU ARE MAKING DINNER

BOILING SPAGHETTI

YOUR MOM IS RUSHED TO THE EMERGENCY ROOM

YOU RUN OUT THE DOOR TO HELP

WHAT HAPPENS TO THE BOILING SPAGHETTI?

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CONTROLS KEEP THIS FROM HAPPENING

APPLICATION WHITELISTING
(NOT SET UP YET)

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CONTINUOUS VULNERABILITY SCANS

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ACKNOWLEDGED THE ALERT

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ALERTS!

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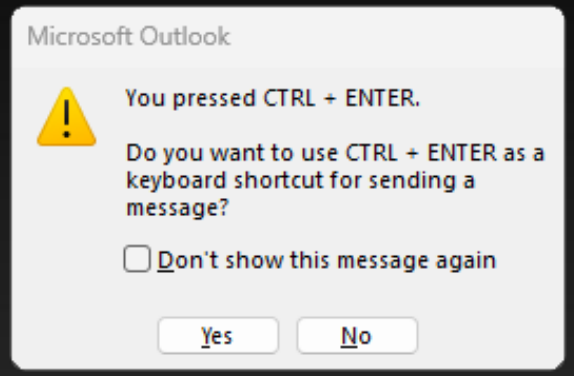

FAVORITE ALERT

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THIS MESSAGE POPS UP TO MAKE SURE YOU ARE SURE YOU WANT TO SEND

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CTRL + ENTER
ENTER


Annoying Confirmation
Are you sure?
Yes
No
Annoying Confirmation
Are you sure?
Yes
No
Annoying Confirmation
Are you sure?
Yes
No
Annoying Confirmation
Are you sure?
Yes
No
Annoying Confirmation
Are you sure?
Yes
No
Annoying Confirmation
Are you sure?
Yes
No
Annoying Confirmation
Are you sure?
Yes
No

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YES, I AM SURE

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NUISANCE ALERTS

REDUCE RESPONSE

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CREATE A RESPONSE PLAN FOR EACH TYPE OF ALERT

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BUILD OUT TOURS OF DUTY

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ONE PERSON RESPONSIBLE FOR APPLICATION APPROVAL

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WORK THAT TOUR OF DUTY FOR 90 DAYS

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ROTATE TO THE NEXT PERSON

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THEY OWN IT
FOR 90 DAYS

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WHY 90 DAYS?

CREATE COMPETENCY AFTER 2 WEEKS

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PART OF THE CAREER PATH INSIDE YOUR COMPANY

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CREATES REDUNDANCY AND ACCOUNTABILITY

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NEW PERSON IN A ROLE EVERY 90 DAYS

REQUIRES GREAT DOCUMENTATION

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PROTECTS YOU FROM TURNOVER

CREATE A SYSTEM

- **Batch work**
- **Get stuck?**
- **Get help** at 15 minutes
- **Ask for help**
- Update the **just-in-time documentation**

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COMPETENCE ACHIEVED AT WEEK TWO

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HIGH PRODUCTION FOR 10 WEEKS

ROTATE TO THE NEXT DUTY

- Backups
- Patching
- Projects
- Alerts
- Evening

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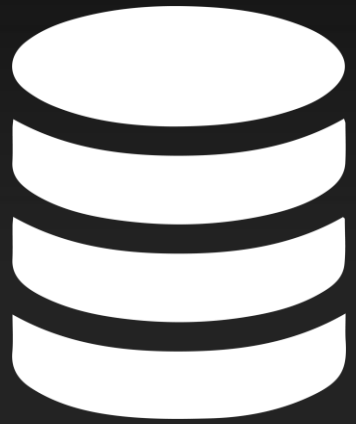
RDP

Rip-off



SQL Server Spanking

MFA

Misfiring

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HAVE YOU EVER HAD A CLIENT TELL YOU

NO?

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REFUSE TO DO THE RIGHT THING?

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“I NEED RDP OPEN IN ORDER TO WORK REMOTELY”

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WHAT ABOUT A VENDOR?

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KNOW IT ALL

BEEN DOING THIS FOR YEARS

NEVER HAD A PROBLEM

VENDOR?

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MICROSOFT SQL SERVER
PUBLICLY ASSESSABLE

VENDOR: WE NEED IT OPEN

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MSP: NOT A GOOD IDEA

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STOPPED THERE.

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HOW DOES THIS GO DOWN?

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WHAT HAPPENS WHEN AN ATTACKER GETS SQL ACCESS?

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THINK ABOUT THAT FOR A MINUTE

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DATA EXFILTRATION

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WHAT ELSE?

```
EXEC xp_cmdshell 'dir *.exe'; GO
```

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DATA EXFILTRATION

LATERAL SPREAD

RANSOMWARE

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CLIENT BLAMED THE MSP

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FIRE THE CLIENT?

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CHANGE THE CONVERSATION

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DO PEOPLE INVEST IN SECURITY TO DO THE RIGHT THING?

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ONE REASON: RISK

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WHAT IS RISK?

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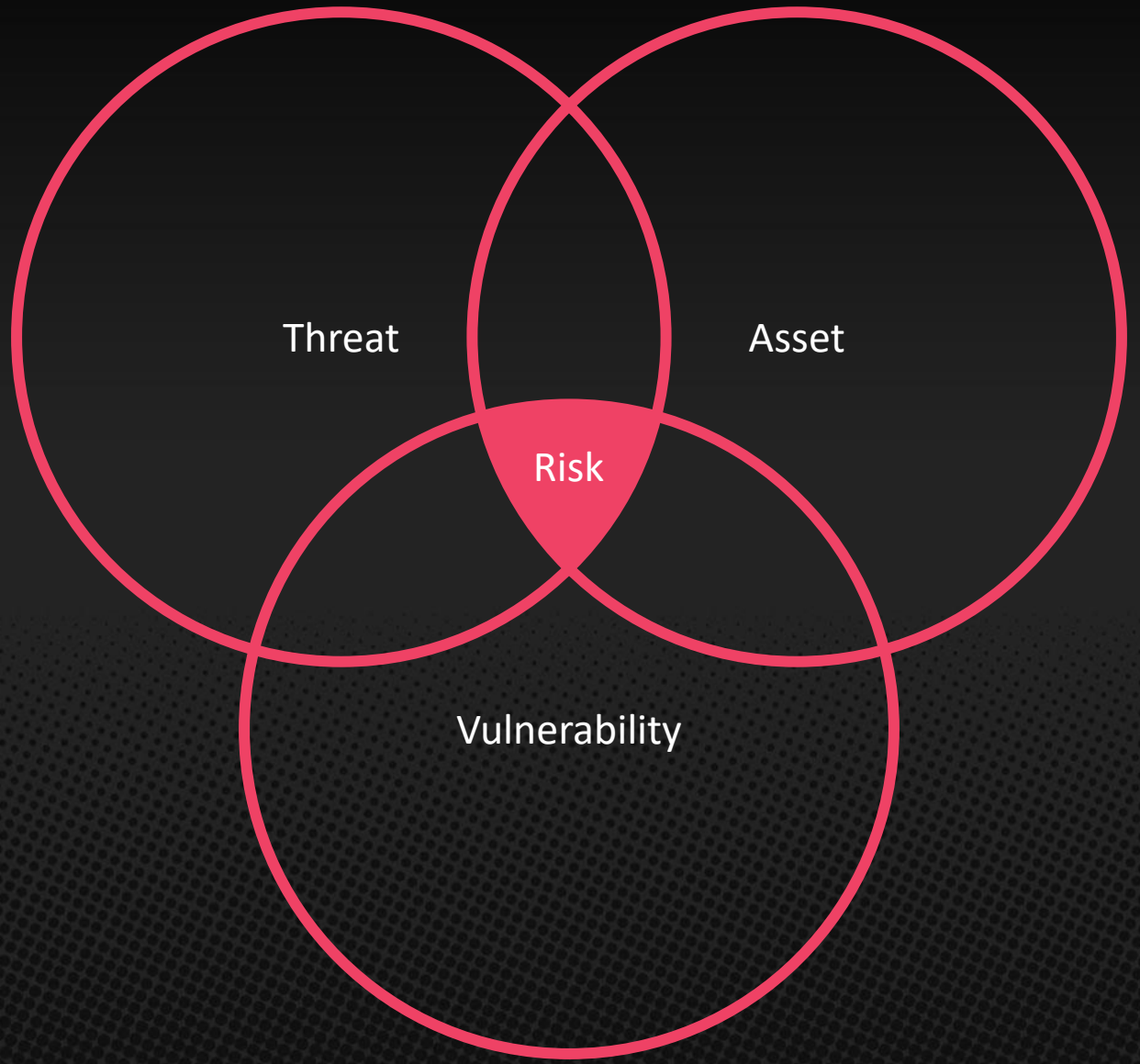

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HOW IS IT MEASURED?

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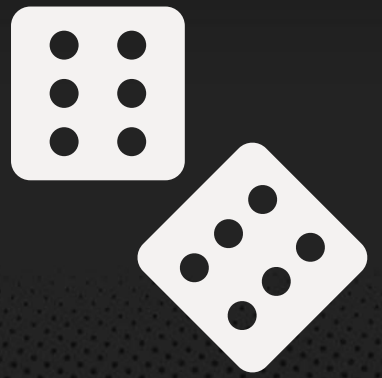
HOW IS RISK MEASURED?

X



Impact

Likelihood

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HAVE YOUR CLIENT SIGN A "RISK ACCEPTANCE FORM"

bruce.mccully@galacticadvisors.com

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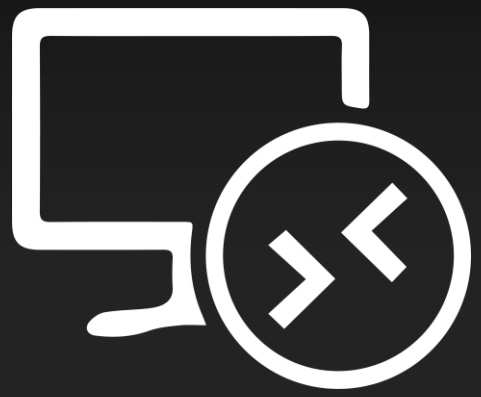

RDP

Rip-off

SQL Server Spanking

MFA

Misfiring

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IMAGINE...

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YOU GET A HUGE OPPORTUNITY

SEND A LINK

THEY CLICK THE LINK

WE ANALYZE THEIR SECURITY

YOU GET A REPORT IN UNDER TWO DAYS

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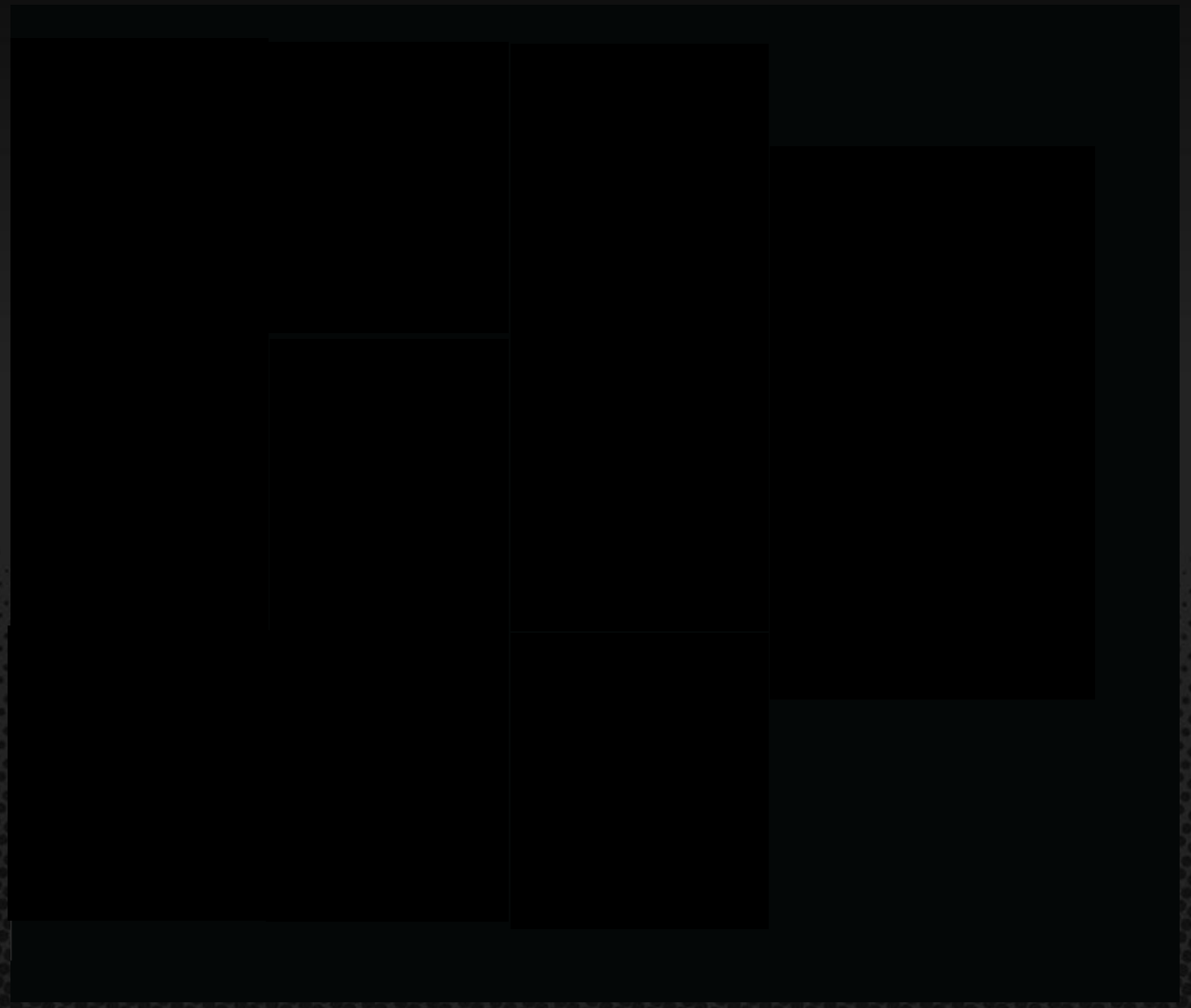
LET THE REPORT DO THE WORK



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SCORE CARD

METHODS

ACCOUNTS

M365

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GLOBAL ADMIN ACCOUNTS
HAVE ACCESS TO

ALL YOUR EXISTING DATA

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“I’ve seen enough. How much does it cost to work with you?”

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YOU LEAVE

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GALACTIC
ADVISORS

GALACTIC ADVISORS

“We fired our existing MSP. When can you start?”

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WHAT THE HECK HAPPENED HERE?

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$24,000 PER MONTH DEAL

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CYBER INSURANCE RENEWAL

SELF ASSESSMENT QUESTIONNAIRE

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“Do you use MFA to protect all local and remote access to privileged user accounts?”

YES.

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“Does your organization enforce multifactor authentication (MFA) in order to access all cloud-based resources?”

YES.

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“Does your organization enforce multifactor authentication (MFA) in order to access or send email?”

YES.

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ALL THE ACCOUNT HAD MFA AS EXPECTED...

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EXCEPT THE ONES THE MSP USED TO MANAGE THEIR M365 TENANT

GLOBAL ADMIN ACCOUNTS HAVE ACCESS TO

ALL YOUR EXISTING DATA

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GALACTIC
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HOW DID YOU GET HERE?

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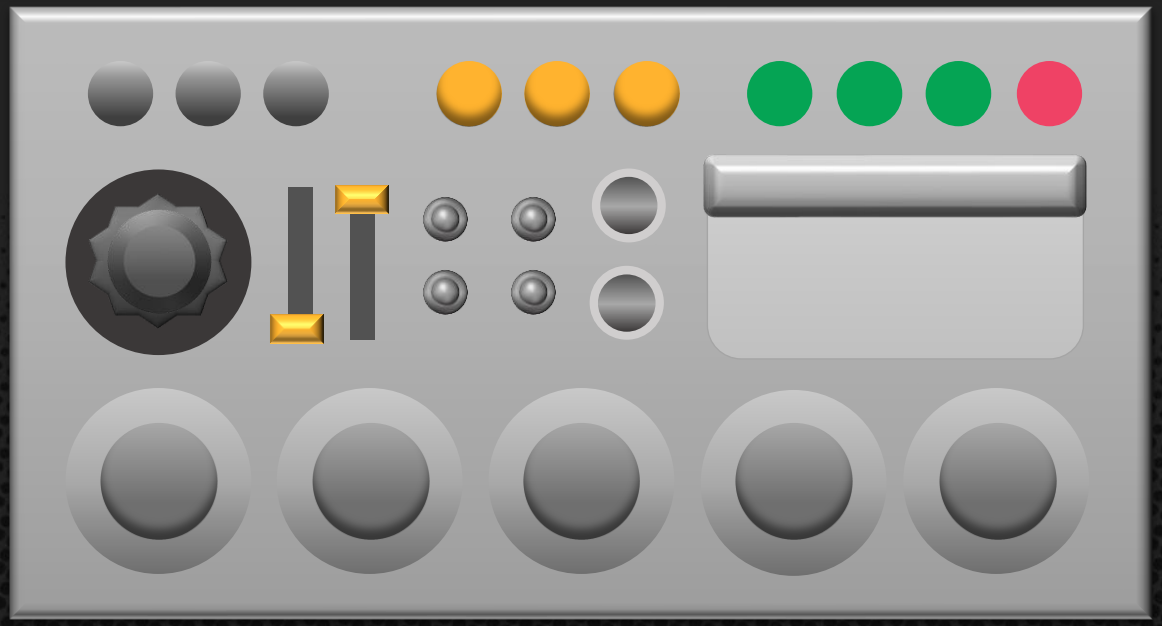
MOVE THE CONVERSATION AWAY FROM INFORMATION TECHNOLOGY



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WHAT IF YOU WERE THE INCUMBENT MSP?

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LOSING A 24,000 PER MONTH CLIENT?

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WHY DID THEY DO IT?

HABITUATION

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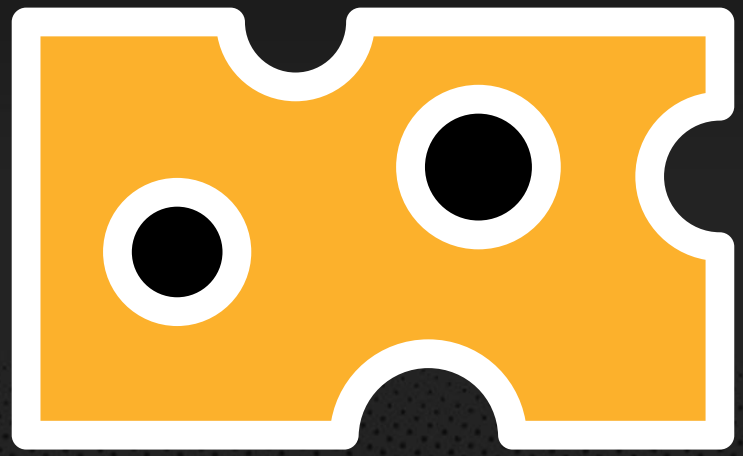

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REDUCTION IN RESPONSE

GRADUAL DESENSITIZATION

COMPLACENCY

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WHAT CAN YOU DO?

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DO YOU HAVE CLIENTS THAT DO NOT WANT TO INVEST UNTIL THEY GET BURNT?

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CREATE AN EXPERIENCE

SEND A LINK

THEY CLICK THE LINK

WE ANALYZE THEIR SECURITY

YOU GET A REPORT IN UNDER TWO DAYS

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DEMONSTRATE THEIR RISKS

IMPACT ON YOUR ORGANIZATION:

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- **High Impact:** Will result in a **severe or catastrophic adverse effect of the system**. May cause damage to the reputation of system management, and/or notable loss of confidence in the system's recourses and services. It will require expenditure of significant resources to repair.

- **Medium Impact:** Will result in **a serious adverse effect on the system**. May cause tangible harm, perhaps only noted by a few individuals or agencies. May cause political embarrassment. Will require some expenditure of recourses to repair.

- **Low Impact:** Will have **some limited adverse effect on the system**. It will require minimal effort to repair or reconfigure the system.

LIKELIHOOD A BREACH EVENT WILL OCCUR:

- **High Likelihood:** Adversary is **highly likely to initiate the threat event**. Error, accident, or act of nature is highly likely to occur, or occurs between 10-100 times a year.

- **Moderate Likelihood:** Adversary is **somewhat likely to initiate the threat event**. Error, accident, or act of nature is somewhat likely to occur, or occurs between 1-10 times a year.

- **Low Likelihood:** Adversary is **unlikely to initiate the threat event**. Error, accident, or act of nature is unlikely to occur; or occur less than once a year, but more than once every 10 years.

CHART THE RISK:

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DATA!

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DATA IS NOT EMOTIONAL

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HOW DO WE MAKE IT EMOTIONAL?

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CONTEXT

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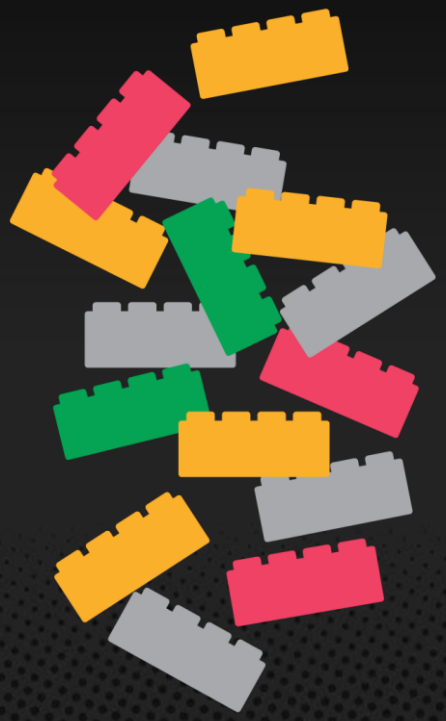
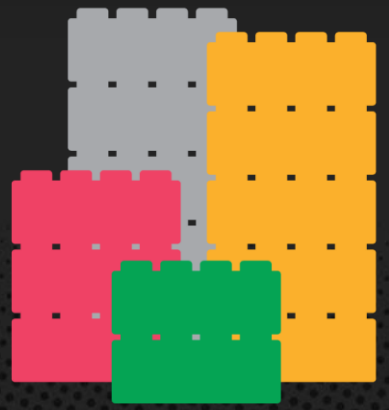
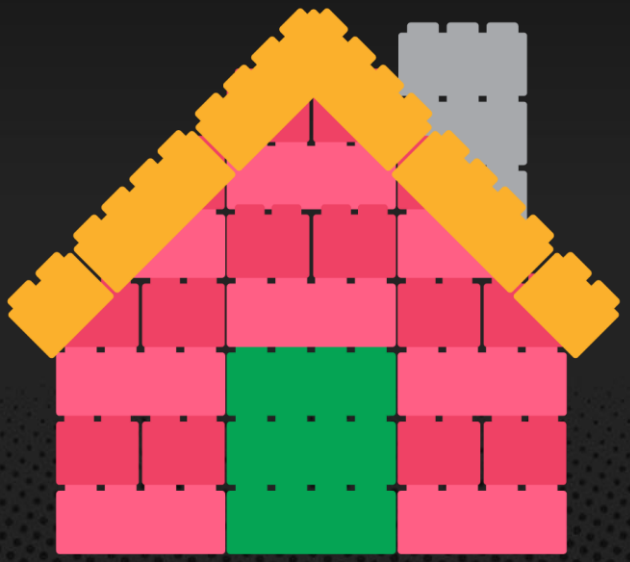


RAW DATA

SORTED DATA



REPORTED DATA



DATA EXPLAINED WITH STORY

PREPARATION

- Should have **at least 3 stories**
- How do you **create a good story?**

Transition
Who
Current state
What happened
Business outcome
Relate to finding

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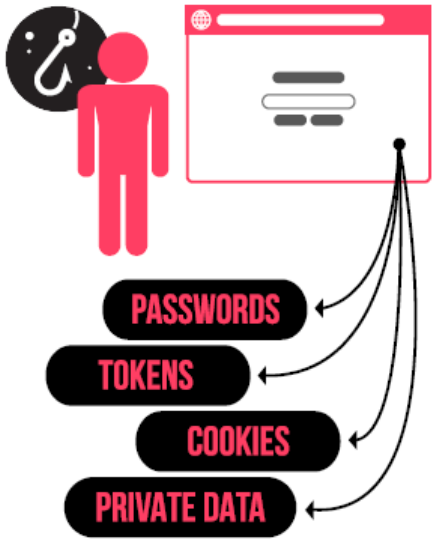
ACCOUNTS HIGH RISK ISSUES

PASSWORDS CRACKED

Passwords were cracked on computers within the environment. Hackers use tools like memory abuse, abusing user privilege, and ripping to obtain access to your passwords when you are phished. When this happens, these passwords are used to break into systems inside and even outside of the victimâ€™s environment. Below is a small sample of the passwords that were cracked. For a complete listing of passwords our team cracked by abusing user privilege refer to the detail report.

CODE	COMPUTER NAME	BROWSER	LOGIN NAME	PASSWORD	URL
8740	G*****9	Chrome	M*****m	1234****	https://l*****ogin

Remediation: Work with users and train them to never store their passwords inside browsers or other memory on the device. Review the passwords that were uncovered during this evaluation, consider additional training around password complexity. Implement password manager with multifactor authentication capabilities to make it difficult for the attacker to get to the memory storing the password set.



When a user is phished and clicks a link, there is one thing running EVERY SINGLE TIME: their web browser. Hackers quickly abuse the user's privileges, identify the cypher for the browser, and then use that cypher to access all passwords, tokens, cookies and private data that web browser has access to. The attacker takes this data set and uses it to access additional accounts to find out more about their victim or to identify a list of people who trust the victim. They use this list to then infect other unsuspecting organizations.

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“This reminds me…”

of a partner at an accounting firm
who thought they were safe
until hackers submitted 180 fraudulent tax refunds,
causing the IRS to suspend their ability to e-file,
and all they needed to get was a password.

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BACKUPS | ACCOUNTS | M365 | PATCHES | ANTIVIRUS | FIREWALLS | EDUCATION | ENCRYPTION | SURVEILLANCE

ACCOUNTS HIGH RISK ISSUES

Page 1/2

PASSWORDS CRACKED

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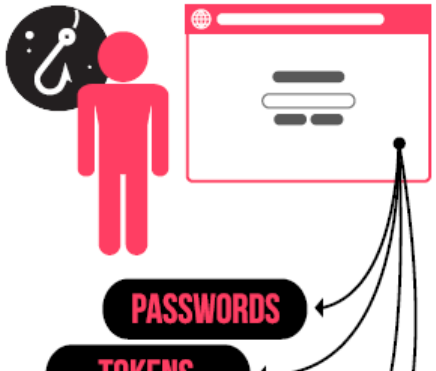

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HOW ELSE?

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CVE-2023-23397

Microsoft Office Outlook Privilege Escalation Vulnerability

CVSS 9.8 CRITICAL

IMAGINE SOMEONE IN YOUR COMPANY

- Received an email
- They opened the email
- Using this **Microsoft Outlook** vulnerability
- **Hackers** accessed their computer
- The attackers took all **your data**

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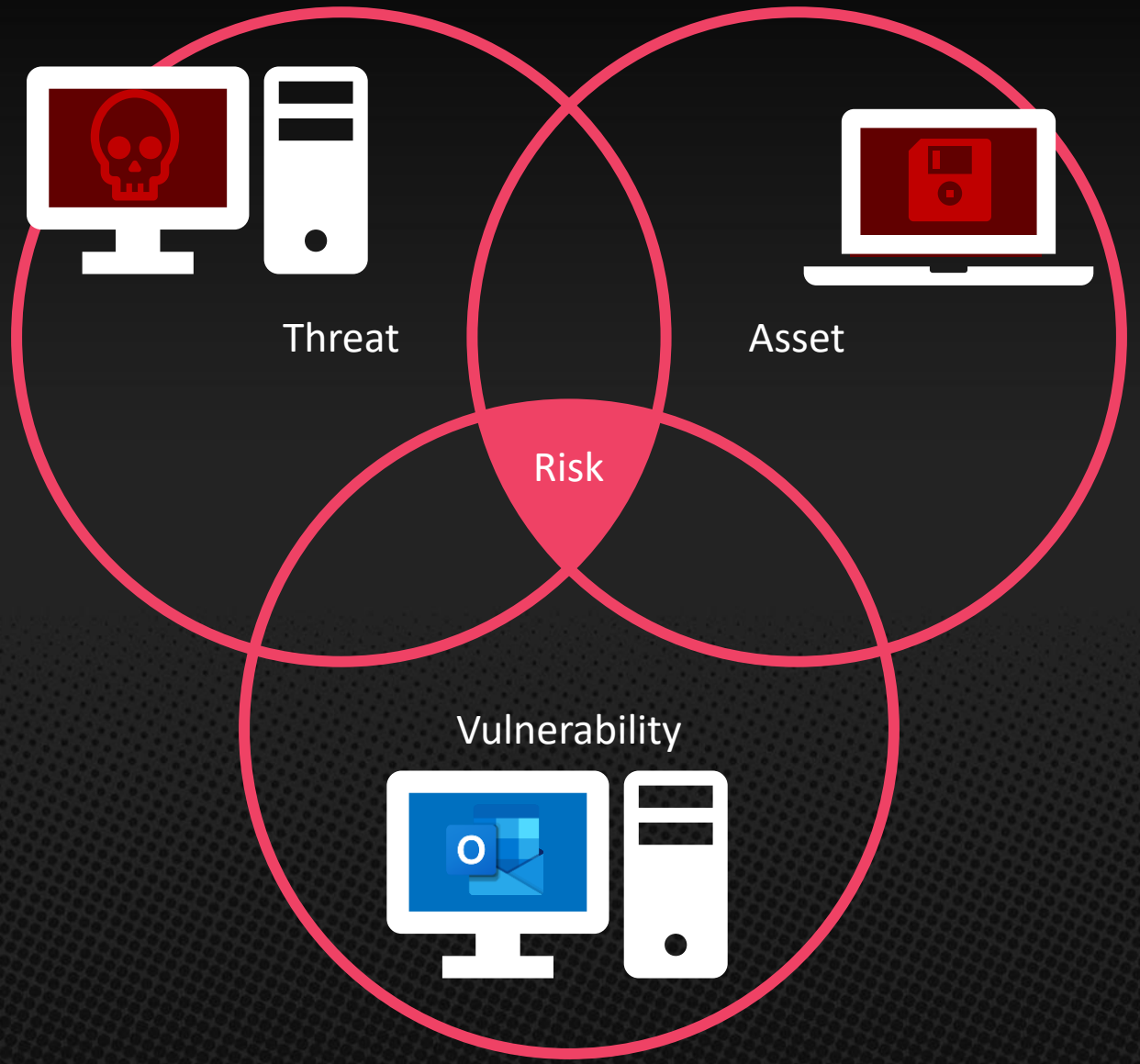

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HOW DO YOU DO THIS?

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OFFER A PENETRATION TEST

Third-party analysis

3 available **THIS MONTH**

SCARCITY

URGENCY

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Google

ON AVERAGE, A HIGH QUALITY, PROFESSIONAL PEN TEST CAN COST

$10,000-$30,000

VALUE

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ITS DIFFICULT TO CREATE:

SCARCITY

URGENCY

VALUE

ANALYZING YOUR OWN WORK

NO ONE CAN PROOFREAD THEIR OWN WORK

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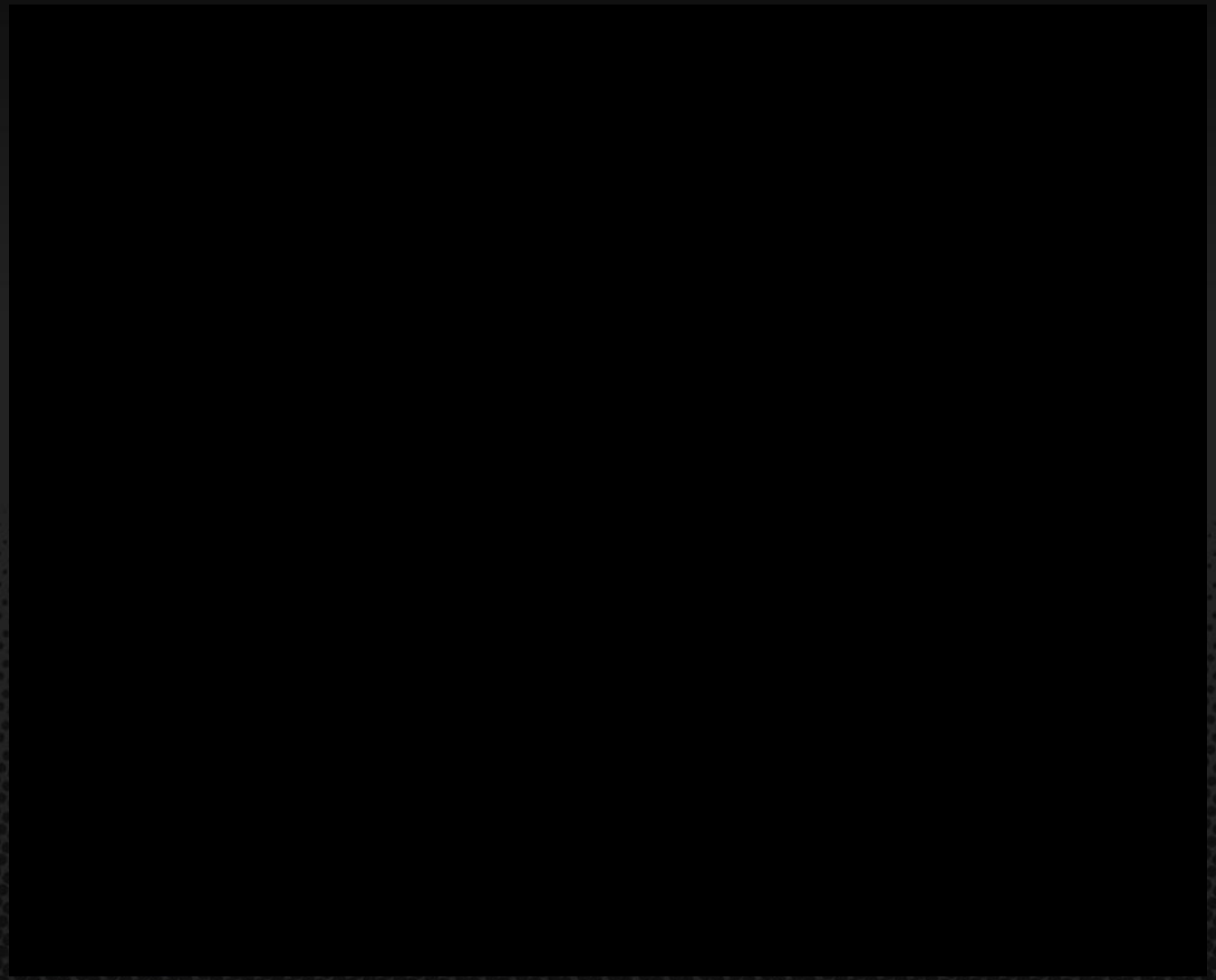

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BRINGING A THIRD PARTY AS A RESOURCE

KEEPS YOU IN THE TRUSTED ADVISOR SEAT

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> This helped seal the deal on a $9,000 security project.

Jason Mance, CEO, Omega Tecks

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$9,000 Project Work

AND

298% MARGIN

Charging $897 Per Month

His Cost $220 Per Month

MISSION:

Protect your most profitable clients with recurring third-party security assessments and pen testing

Update your sales process to
hit these three critical areas

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BECOME IRREPLACEABLE

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vCSO

RECURRING THIRD-PARTY ASSESSMENTS

COMPLIANCE-AS-A SERVICE

BASIC IT

ADVANCED SECURITY

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CHIEF SECURITY OFFICER

YOU'LL HAVE T

- Build a vCSO Offerin
- vCSO Client Profiler
- Vendor Self-Assessme Questionnaire
- Risk Assessment Questionnaire
- Sales Process for vCSO
- Incident Response Proce
- Ransomware Tabletop
- Security Incident Log
- Critical Asset Evaluation Fo m
- Quarterly Privilege Review

NEW!

- Policy
- Security Prese

- Builder
- Defined
- ined Deliverables
- arketing Workflow and orksheet
- arketing Materials for vCSO isk Assessment, Campaign, mail/Phone Scripts
- Penetration testing
- Threat Intelligence

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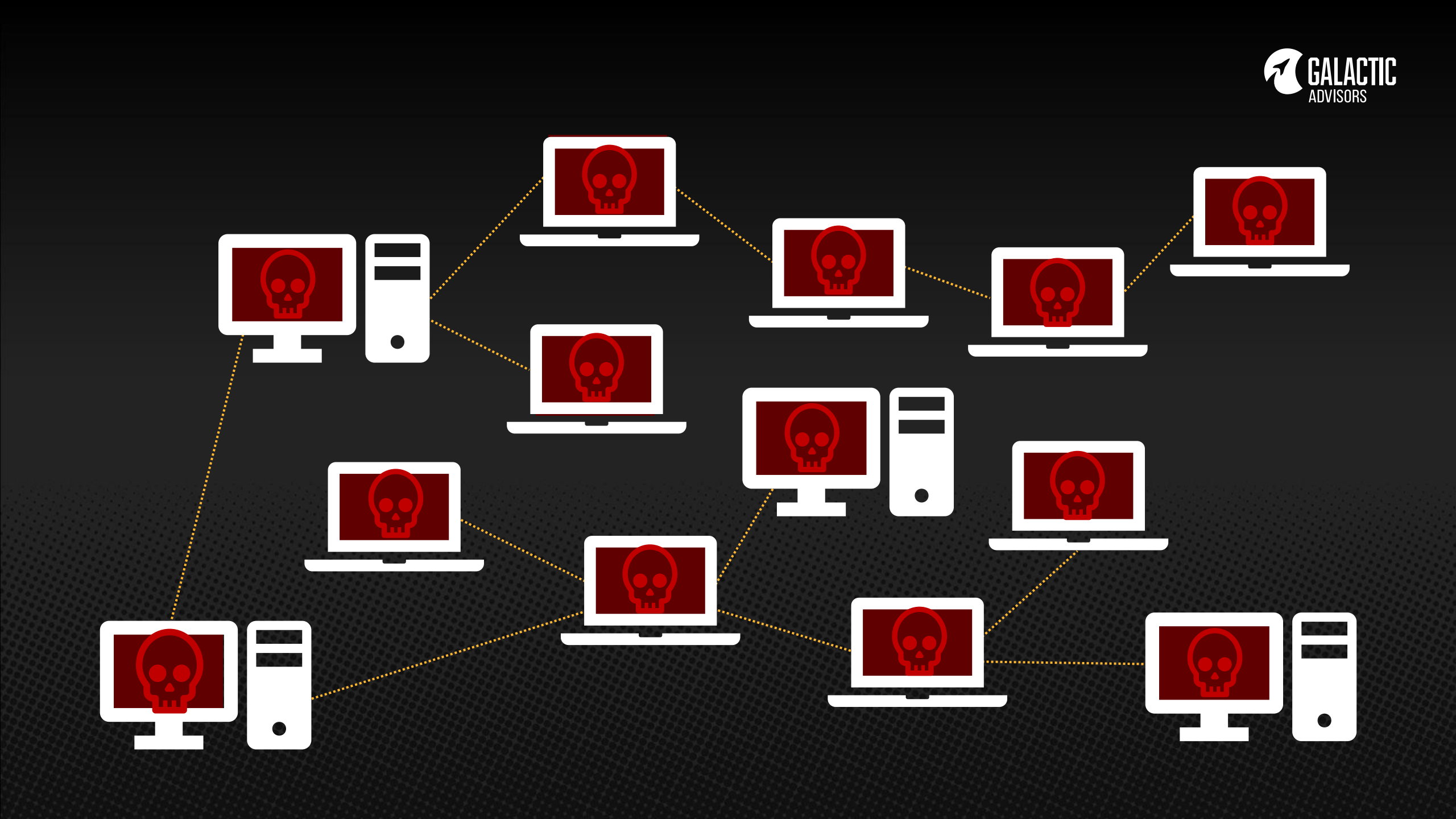
HOW DO YOU GET STARTED?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GALACTICSCAN

WOULD YOUR SECURITY SOLUTION DETECT OR STOP AN ATTACK?

GALACTICSCAN.COM/STACK

GALACTICSCAN

Here's what you can do:

GET A FREE ASSESSMENT OF YOUR CYBERSECURITY STACK

GALACTICSCAN.COM/STACK

GALACTICSCAN

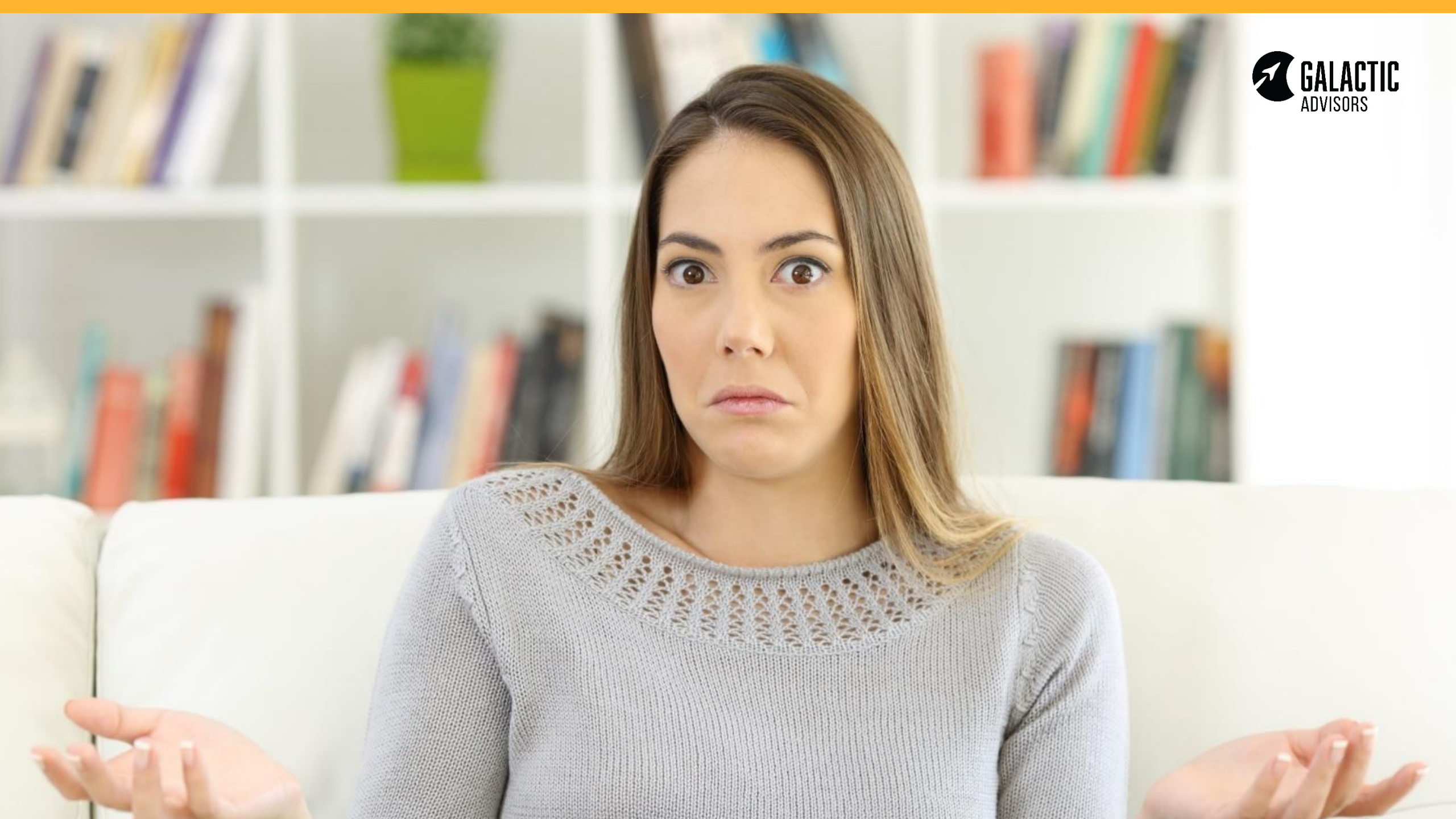
We will:

Analyze your security

Show how your tools respond

Give you steps you can take to protect yourself and your clients

GALACTICSCAN.COM/STACK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GALACTIC ADVISORS

1 MILLION

PEOPLE

GALACTICSCAN.COM/STACK

GALACTICSCAN

Here's what you can do:

GET A FREE ASSESSMENT OF YOUR CYBERSECURITY STACK

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