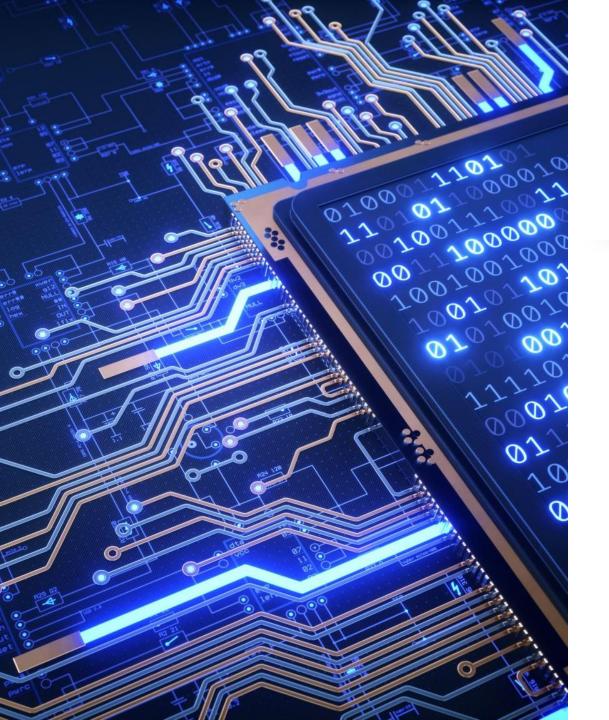


# Practical Cybercrime Intelligence

CyberThreat23



## **About Me**

- Will Thomas
- Co-author of SANS FOR589:
   Cybercrime Intelligence
- Co-founder of Curated Intelligence
- CTI Researcher at Equinix
- Aka @BushidoToken online



# Practical Lessons from a Cybercrime Investigation

Navigating the darknet

Identifying Infrastructure

Mapping Capabilities

Researching the Adversary

Revealing its Victims

Malware Analysis

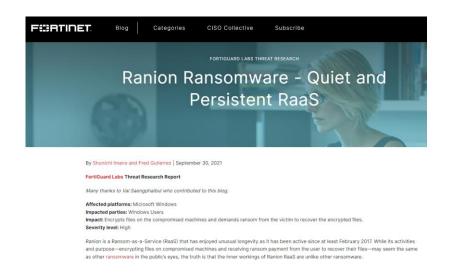
Blockchain Analysis

Campaign Profiling

## **OSINT on Ranion**

- Appeared around February 2017
- Ransomware-as-a-Service
- Self-Service Kit and Pay-as-you-go
- Spreads via phishing emails with ZIP attachments containing the EXE
- Ransomware code is based on HiddenTear (an open-source ransomware with code on GitHub)
- Code is Packed (obfuscated) with ConfuserEx







## Infrastructure



## **Ranion's Tor Site**

### **Original Tor Site:**

o ranionjgot5cud3p[.]onion

#### New Tor v3 Site:

 ranionv3j2o7wrn3um6de33eccbch hg32mkgnnoi72enkpp7jc25h3ad[.] onion

#### **Bitcoin Address:**

 bc1qt62kaxu2tmx5pcdspl534arryz 47ga4vw36kfh

#### **Emails:**

- ranion(at)mail2tor.com
- o ranionr44s(at)dnmx.org

#### Filename:

o r4n1onr44s-new.exe

#### RANI ON N - Better & Cheapest FUD Ransomware + Darknet C2 + NO Fees

#### BUY - FAQ - REVIEWS - SCREENS - SCAMMERS - CONTACT

We provide an already configured and compiled FUD Ransomware + Decrypter We are the only that provide a FREE Anonymous C2 Dashboard via Onion to manage your Clients We also provide additional FREE Customizations and take NO FEES from your Clients

DISCLAIMER: Our Products are for EDUCATIONAL PURPOSES ONLY. Don't use them for illegal activities. You are the only responsable for your actions! Our Products/Services are sold with NO WARRANTY and AS ARE.

\*\*\* THE ONLY ORIGINAL ONE (v3): ranionv3j2o7wrn3um6de33eccbchhg32mkgnnoi72enkpp7jc25h3ad.onion \*\*\*

\*\*\* THE ONLY ORIGINAL ONE (v2): ranionjgot5cud3p.onion \*\*\*





-= SCREENSHOTS =-

-= HOW TO BUY =-

#### Carefully read our FAQ and after use following procedure:

- Send the Package's price to following Bitcoin address: bc1qt62kaxu2tmx5pcdspl534arryz47ga4vw36kfh
- 2. Write us an email to ranion(at)mail2tor.com | ranionr44s(at)dnmx.org telling us:
- Chosen package
- Your Bitcoin address used to send us money
- Your own Bitcoin/Monero address to receive money from your Clients
- Your price to receive from your Clients (ie. 0.20 btc/xmr)
- Your email address to get contacted from your Clients
- If you want to keep track of IPs of your Clients (enabled by default)
- Chosen paid add-ons
- Chosen optional free add-ons
- 3. Wait until we check your payment
- 4. You will receive an email with 2 links:
- The first one with your files (Ransomware + Decrypter)
- The second one with your C2 Dashboard

Any setup information must be sent with payment email. No further customization can be put in place if your own RANION copy is in production.

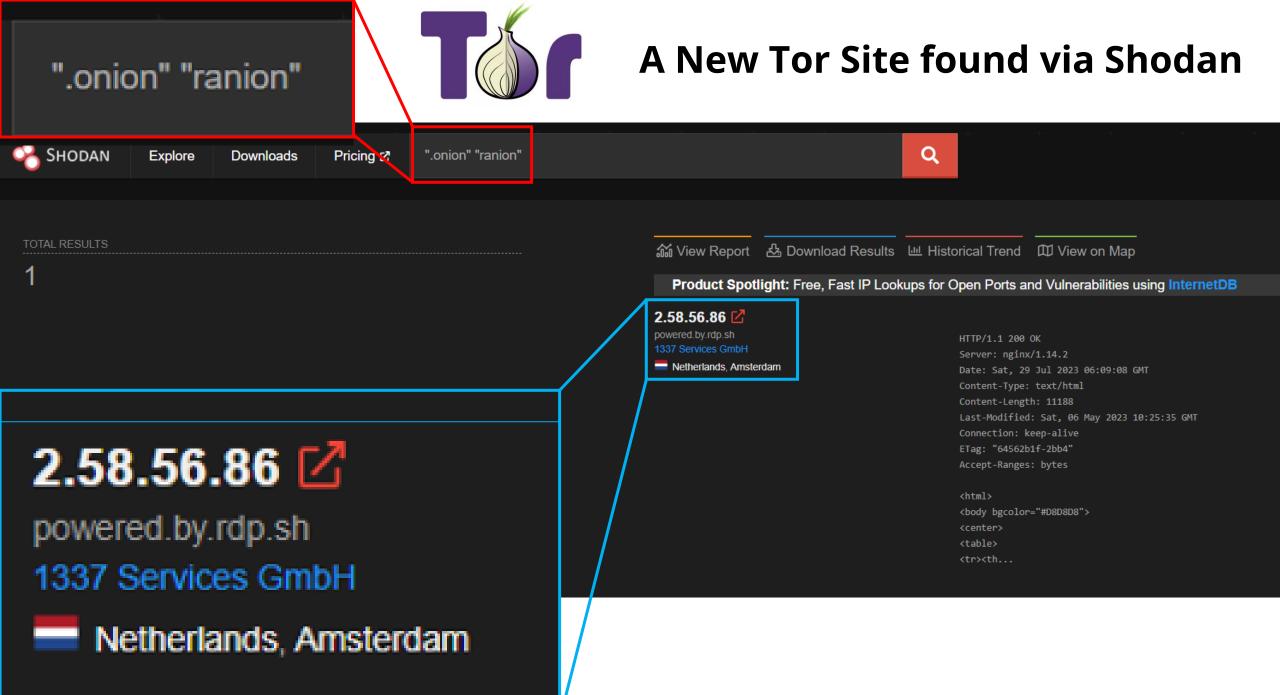
## Ranion Ransomware-as-a-Service

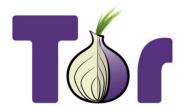
RANI N - Better & Cheapest FUD Ransomware + C&C on Darknet + NO Fees

C&C DASHBOARD v1.06 - YOUR SUBSCRIPTION WILL EXPIRE ON: 2017-12-31

#### [+] CLIENTS [6] ::

Computer ID	Username	os	IP Address	Date	Files Encrypted	AES Key
WIN-8K9L5JGAMCT	Administrator	Windows 8	109.29.123.12	2017-05-10	16346	/C96U6Tn4vRgtWASKuV*Ze0Inxol/7NE7RERNYE82434H.:
LAB-DHVNA91HFJS	Lab.user	Windows 7 Professional	210.122.124.23	2017-05-11	6786	pPODOREPOROlon8N3CDHFSIHDUFHUFH28317BCBC.
WIN-83HFJALCKAJ	johndoe	Windows 7 Home Edition	111.109.122.132	2017-05-11	7211	kLKoplO329083912DFhjbjhhjdgY877878G8ggHGHlhhgH*
WIN-PPOJF824BCN	user0128	Windows Server 2008	43.123.64.54	2017-05-11	5830	INNHSDNSHDUIY38297183NBSDJHUIW/(NY98HUJHJHD
REC-IIQ23HVB8SU	reception	Windows 7 Home Edition	66.34.22.111	2017-05-13	11223	)87(nJHDNJFHDJFNC3423787NHngygdT236278Bg7/(tN7 <
PC-MNQ9111HFNV	elisabeth	Windows 10	56.312.55.12	2017-05-13	4718	ShgdshDGSHG/£277178823UDJHFC838294*KJ4JR9384





## Scammer's Tor Site

yfcztpdrhan2bjnensc6xd5zibbcbqrmccmkrrulfdgivhlcaomszwqd.onion

RANI ON - Better & Cheapest FUD Ransomware + Darknet C2 + NO Fees

#### BUY - FAQ - REVIEWS - SCREENS - SCAMMERS - CONTACT

We provide an already configured and compiled FUD Ransomware + Decrypter We are the only that provide a FREE Anonymous C2 Dashboard via Onion to manage your Clients We also provide additional FREE Customizations and take NO FEES from your Clients

DISCLAIMER: Our Products are for EDUCATIONAL PURPOSES ONLY. Don't use them for illegal activities. You are the only responsable for your actions! Our Products/Services are sold with NO WARRANTY and AS ARE.

\*\*\* THE ONLY ORIGINAL ONE (v3): yfcztpdrhan2bjnensc6xd5zibbcbqrmccmkrrulfdgivhlcaomszwqd.onion \*\*\*

-= NEWS =-

- 2023/02: RANION v1.32 released (re-FUD)
- 2023/03: RANION v1.33 released (re-FUD)





-= CHOOSE YOUR PACKAGE =-

#### [PACKAGE #ELITE] - 12-MONTH C2 Dashboard (RaaS) - Price: 1900 USD

- C# FUD Ransomware (AES 256 Encryption with a 64 chars long uncrackable key)
- C# Decrypter
   Stub Size: 250kb (unique exe for each buyer)
- Stub #: 6 x 100% private FUD stubs
- Platform: Windows (both x86 and x64)
- Duration: 12 Months access to Darknet C2 Dashboard (to receive the AES keys from
- Fees: We take NO FEES from your Clients
- Features: Delayed Start, Delayed Encryption, Mutex, Task Manager/Registry Editor Disabler, UAC Bypass, Desktop Wallpaper Changer
- IP Tracking: Yes
- Offline Encryption: Yes
- Support: Yes
- Real-Time Client Manager: Yes
- Paid Add-On (Dropper): Execute your own exe (backdoor, implant, etc.) (FREE)
- Paid Add-On (Clone): A fresh FUD RANION copy with the same setup information (FREE)
- Paid Add-On (FUD+): Additional Crypter/Obfuscator to improve FUD ratio (FREE)
   Paid Add-On (Unkillable Process): Unkillable Process aka BSOD (FREE)
- Free Add-On: optional file types to encrypt (for all encrypted file types see FAQ)
- · Free Add-On: optional Client's sub-banner in your language (already present en, ru, de, fr, es, it, nl, fas, za)

#### [PACKAGE #PREMIUM] - 12-MONTH C2 Dashboard (RaaS) - Price: 1090 USD

- C# FUD Ransomware (AES 256 Encryption with a 64 chars long uncrackable key)



-= SCAMMERS EXPOSED =-

RANION is famous and is the #1 Darknet RaaS since 2016 so a lot of impostors tried to clone our project (just using our onion site pages with a few mods) in order to scam ingenuous people. So stay away from these SCAMMERS:

#### **Actual Ranion Tor Site Address:**

\* (SCAMMER) EGALYTY (RaaS): ranionv3j2o7wrn3um6de33eccbchhg32mkgnnoi72enkpp7jc25h3ad.onion

\* (SCAMMER) RANION (Clone): ygamskhreuqawl4zdsi6je36g4rc4f5re2jk7fdoyhsddeh32buf6jqd.onion

#### **Bitcoin Address:**

bc1qezstceqtjg9qsu7uprapcevxlhrs9rttc2h0lm

#### **Email:**

Incognit0@dnmx.org



# Capabilities

#### MITRE ATT&CK TTPs

- 1. "Delayed Start"
  T1497.003 Time Based
  Evasion
- "Delayed Encryption"T1486 Data Encrypted for Impact
- 3. "Task Manager/Registry Editor Disabled"T1112 Modify Registry
- 4. "UAC Bypass"
  T1548.002 Bypass User
  Account Control (UAC)
- 5. "Desktop Wallpaper Changer" T1491.001 - Internal Defacement

Features: Delayed Start, Delayed Encryption, Mutex, Task Manager/Registry Editor Disabler, UAC Bypass, Desktop Wallpaper Changer

	Package #TEST	Package #STANDARD	Package #PREMIUM	Package #ELITE
Subscription	1 Month	6 Mondis	12 Months	12 Months
Darknet C2 Dashboard	Ves	Yes	Yes	Yes
Features: Delayed Start, Delayed Encryption, Mutex, Task Manager/Registry Editor Disabler, UAC Bypass, Desktop Wallpaper Changer	Yes	Yes	Yes	Yes
Offline Encryption	No	Yes	Yes	Yes
Support	No	Yes	Yes	Yes
Real-Time Client Manager	No	Yes	Yes	Yes
Add-On: Dropper (+90 USD)	No	Buy	Yes (Free)	Yes (Free)
Add-On: Clone (+90 USD)	No	Buy	Buy	Yes (Free)
Add-On: FUD+ (+300 USD)	Buy	Buy	Buy	Yes (Free)
Add-On: Unkillable Process (+90 USD)	No	Buy	Buy	Yes (Free)
FUD Stub #	1	1 (100% private FUD stub)	2 (100% private FUD stub)	6 (100% private FUD stub)
Price	150 USD	590 USD	1090 USD	1900 USD
	, analysis /			



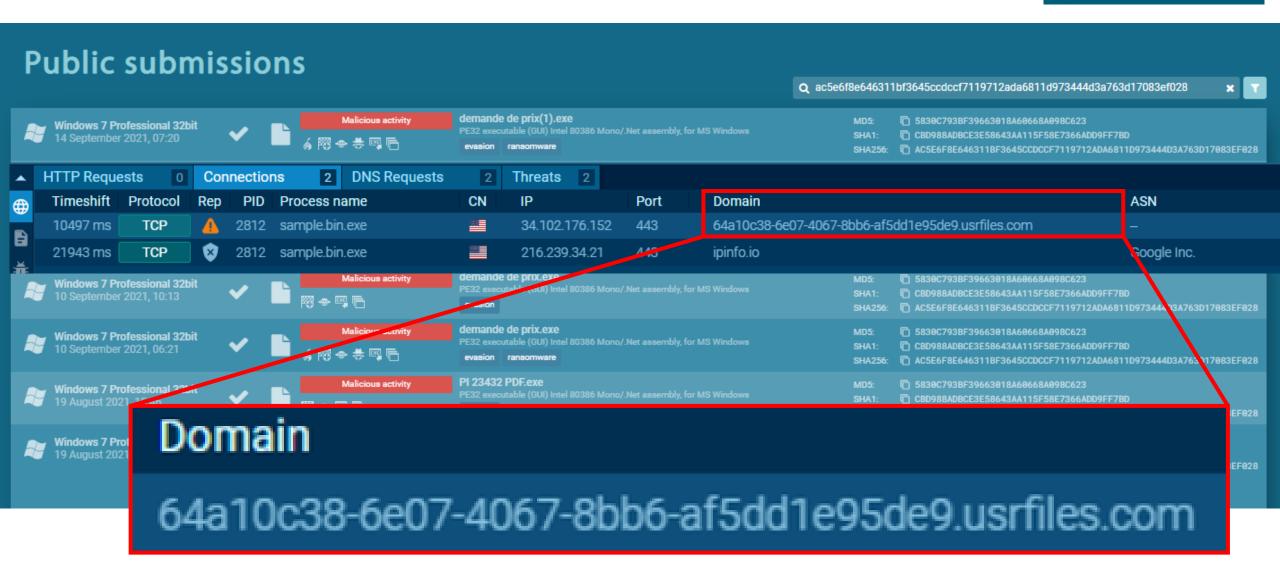


<b>Creation Time</b>	MD5 File Hash	Size
2017-04-25 15:54:19 UTC	1ff22451d7c700ae6bdc765e06f21619	231.50 KB (237056 bytes)
2018-01-26 15:19:26 UTC	eca948ea4dec7a9237605658e516baa6	274.50 KB (281088 bytes)
2018-07-28 19:40:09 UTC	4a9891a32895ac456bfdf7e05eb176c1	275.50 KB (282112 bytes)
2018-11-15 08:55:38 UTC	61e69b6ecf176fc74179fffab0fc4292	276.50 KB (283136 bytes)
2021-08-16 08:08:05 UTC	5830c793bf39663018a60668a098c623	260.50 KB (266752 bytes)

Similarities	Value
Common File Name	custom-2017.exe
Other Style File Name	"r44s_YYYY-MM-DD NNNN.exe"
Import Hash (Imphash)	f34d5f2d4577ed6d9ceec516c1f5a744
VirusTotal Magic Check	PE32 exe for MS Windows, Intel 80386 32-bit Mono/.Net assembly
File Version Info	Adobe Acrobat Reader (Copyright 2015 Adobe Systems Incorporated.)

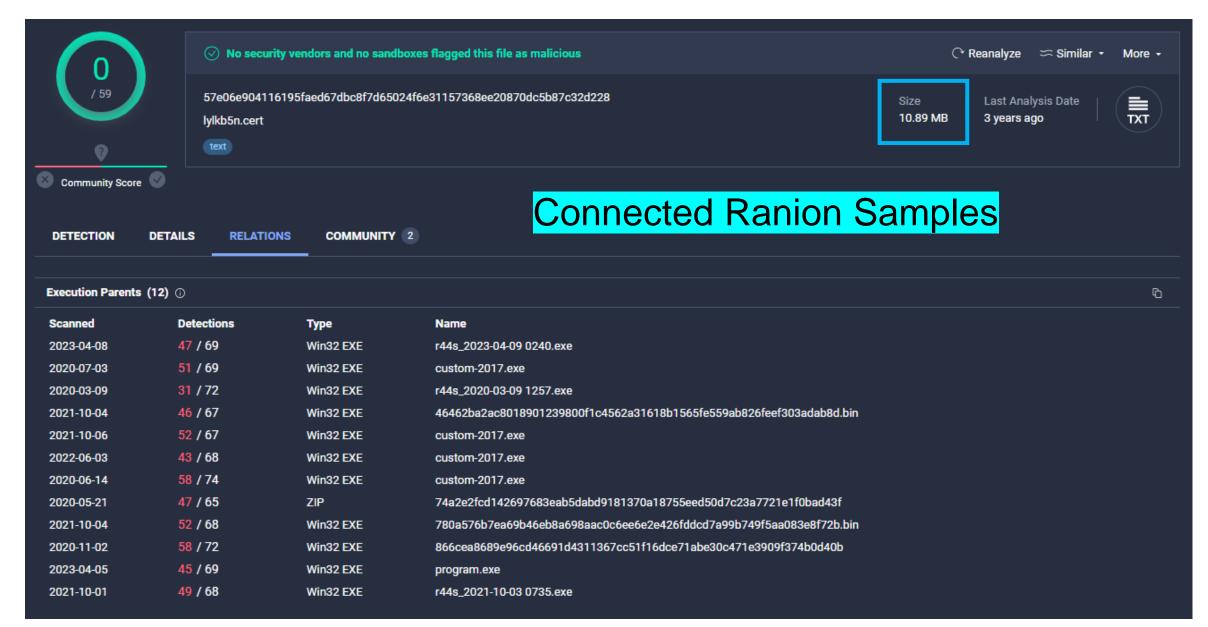
## **Pivoting to Sandbox Detonations**







## Virus Total The .cert file is actually 0/59 FUD!



## CertUtil for Ranion payload decoding

T1140	Deobfuscate/Decode Files or Information	certutil has been used to decode binaries hidden inside certificate files as Base64 information. <sup>[3]</sup>
T1105	Ingress Tool Transfer	certutil can be used to download files from a given URL. <sup>[1][2]</sup>



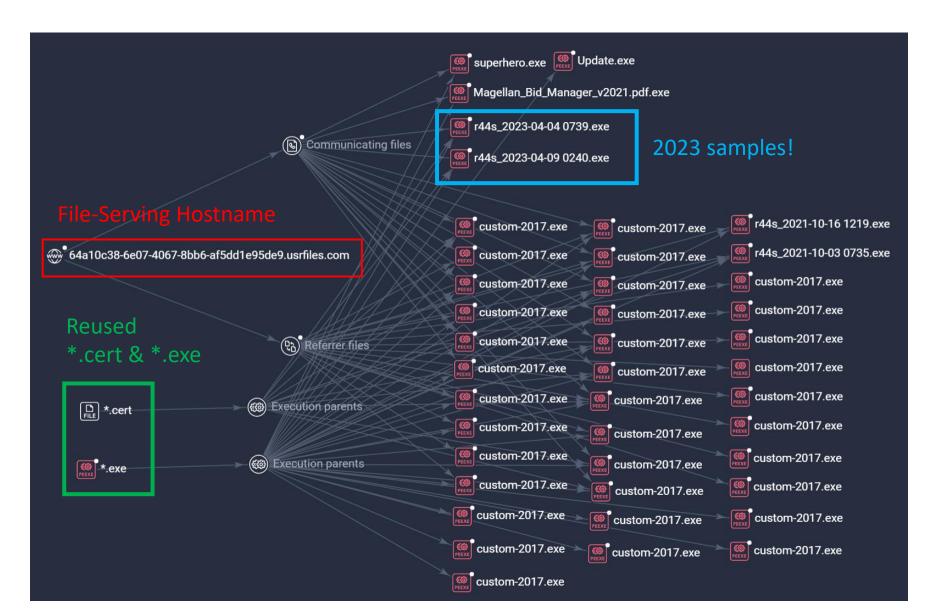


- "certutil.exe" –decod C:\Users\admin\AppData\Roaming\shapn6s.cert
- "C:\Users\admin\AppData\Roaming\shapn6s.exe"
- "C:\Users\admin\AppData\Roaming\shapn6s.exe" -HTTPTunnelPort 10080
- "C:\Users\Public\r44s\_2021-09-10 1013.exe

## Pivoting in



A lot more IOCs!





# Adversary

## Ranion on the Cybercrime Forums

\* Review on Bleeping Computer:

\* Reviews on OnionDir:

\* Verified Seller on CryptBB Forum:

\* Verified Seller on Torum Forum:

\* Verified Seller on KickAss Forum:

\* Verified Seller on Oday Forum:

http://www.bleepingcomputer.com/

http://auutwvpt2zktxwng.onion/

http://cryptbb2gezhohku.onion/

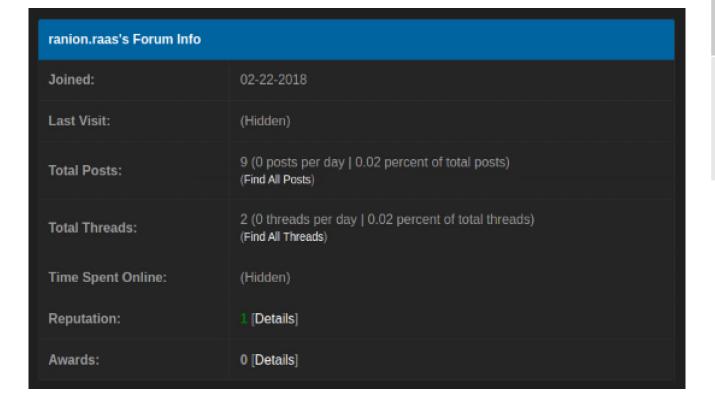
http://torum43tajnrxritn4iumy75giwb5yfw6cjq2czjikhtcac67tfif2yd.onion/

http://o3nqszgvtqwcc2mxqcqgeyulkh6spiv6yaahgu7znaphzmikfvpu5aad.onion

http://qzbkwswfv5k2oj5d.onion/



# RANION (RaaS) | FUD Ransomware + C&C on Darknet + NO Fees Ination (grad load) purion (RaaS) ranion.raas • Junior Seller 04-10-2018, 09:08 PM



## Ranion on CryptBB

Username: "ranion.raas"

Account Type: Seller

Account Rating: Junior (New)

Joined: 22 February 2018

Total Post: 9

Total Threads: 2

Positive Reputation: +1

Last Visit: Hidden

Time Spent Online: Hidden

This is the last surviving profile, as the other forums have gone offline

## Ranion operator on the Forums

- "ranionjgot5cud3p.onion" is shared in the Ranion operator's original post
- Only advertised on English-speaking crimeware forums, somewhat unusual
- Thread: "RANION (RaaS) | FUD Ransomware + C&C On Darknet + NO Fees"

Forum	Date	Activity
Zeroday	24-May-2017	"ransion.raas" shared the first advert of Ranion
KickAss	01-Feb-2018	"ransionraas" advertised Ranion on KickAss
CryptBB	10-Apr-2018	"ranion.raas" advertised Ranion on CryptBB
Torum	07-Mar-2020	"ranion.raas" advertised Ranion on Torum
CryptBB	26-Oct-2021	"ranion.raas" explains that Ranion works with any .NET crypter

## Ranion scams appear on the Forums

- Fake version of Ranion was spread around in August 2021
- Ranion operators warned about the scammers in September 2021

Forum	Date	Activity
Tape	16-Aug-2021	"Ranion" advertised fake Ranion on Tape
Club2Crd	16-Aug-2021	"Ranion" advertised fake Ranion on Club2Crd
World Forum	17-Aug-2021	"Ranion" advertised fake Ranion on World Forum
Torigon	23-Aug-2021	"Ranion.RaaS" advertised fake Ranion on Torigon
Best Carding World	29-Aug-2021	"Ranion" advertised fake Ranion on Best Carding World
CryptBB	12-Sept-2021	"ranion.raas" warns about the scammers and added a section to the actual Tor site about fake Tor sites

## Ranion customers on the Forums

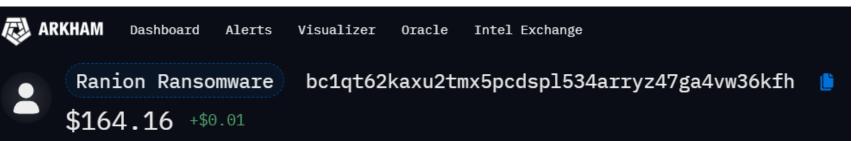
Forum	Date	Activity
KickAss	20-Jul-2018	"slasher1" informed "ranionraas" they bought Ranion
CryptBB	28-Jun-2018	"Tiren72" replied to "ranion.raas" they recommend Ranion
Torum	13-June-2019	"kingofspades" recommended ".exe can be stitched to PDFs" on a thread about Ranion ransomware
CryptBB	07-Mar-2020	"Funshine" replied to "ranion.raas" they recommend Ranion
CryptBB	18-May-2022	"Sn1PeR" paid and sent an email and never received a reply from Ranion
CryptBB	01-Jun-2022	"bentleybitup" wrote that Ranion is not worth any money as it is a copy of <b>HiddenTear</b> and recommends using leaked <b>Babuk</b> or <b>Conti</b>

## How much is Ranion making?





BTC Address from the Tor Site:

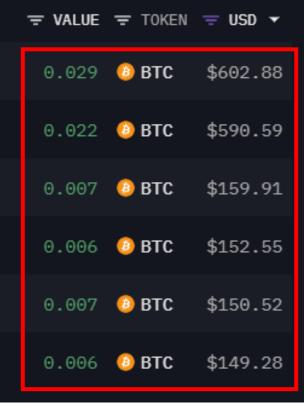


^		TRANSACTIONS 1 / 1	OUTFLOW			
<del>-</del> 0	⊙ <del>=</del> TIME	<del>-</del> FROM		₹ VALUE	₹ TOKEN	
33	6 months ago	bc1qpt4ndv7dntwrngr2n4y92a8zkkxuly66ztxd9e		0.029	ВТС	\$602.88
23	3 months ago	bc1qakmdh2hmdlkcpw0swvmdvug4phtmjjseryv6kp		0.022	ВТС	\$590.59
23	6 months ago	■ Bybit (1GrwD)		0.007	ВТС	\$159.91
**	4 months ago	3C5jyWqHEYrYWpPF6scSYKorUsEQhhTm2R		0.006	ВТС	\$152.55
33	6 months ago	bc1qw788vqeqwhu4uunp2ukwfrmx90clhte4xznnra		0.007	ВТС	\$150.52
***	2 months ago	bc1qr35stg99z4ta78g0qqxu4y00zmfaczyn9agp4c		0.006	ВТС	\$149.28

~\$1.8k 19 Jan – 19 May 2023

#### -= PACKAGES COMPARISON =-

	Package #TEST	Package #STANDARD	Package #PREMIUM	Package #ELITE
Subscription	1 Month	6 Months	12 Months	12 Months
Darknet C2 Dashboard	Yes	Yes	Yes	Yes
Features: Delayed Start, Delayed Encryption, Mutex, Task Manager/Registry Editor Disabler, UAC Bypass, Desktop Wallpaper Changer	Yes	Yes	Yes	Yes
Offline Encryption	No	Yes	Yes	Yes
Support	No	Yes	Yes	Yes
Real-Time Client Manager	No	Yes	Yes	Yes
Add-On: Dropper (+90 USD)	No	Buy	Yes (Free)	Yes (Free)
Add-On: Clone (+90 USD)	No	Buy	Buy	Yes (Free)
Add-On: FUD+ (+300 USD)	Buy	Buy	Buy	Yes (Free)
Add-On: Unkillable Process (+90 USD)	No	Buy	Buy	Yes (Free)
FUD Stub #	1	1 (100% private FUD stub)	2 (100% private FUD stub)	6 (100% private FUD stub)
Price	150 USD	590 USD	1090 USD	1900 USD



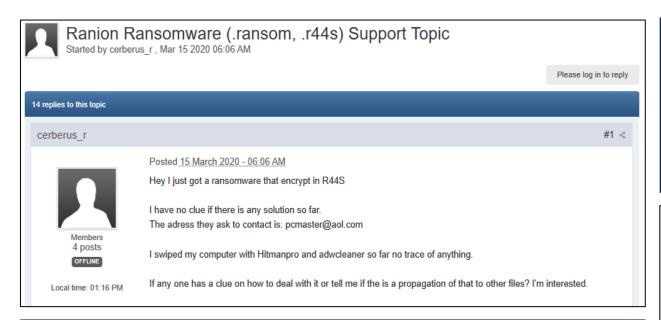
# Ranion Affiliates:

4x Test
Package
2x Standard
Package



# **Victims**

## Ranion victims on BleepingComputer Forums



#### **Victim 1 Details:**

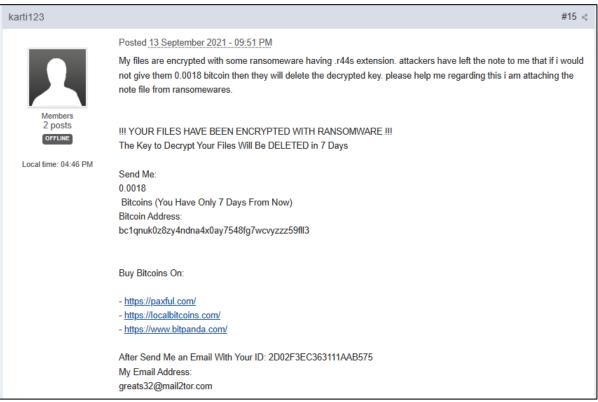
pcmaster@aol.com ".r44s" extension

#### **Victim 2 Details:**

greats@mail2tor.com

".r44s" extension

bc1qnuk0z8zy4ndna4x0ay7548fg7wcvyzzz59fll3



## **Victim BTC Addresses via OSINT**

Ransom Note	Email Address	BTC Address
1	ssdt3@protonmail[.]com	1HDGQjPhe2pakxKJanQv7NuNQRSKQW4C
2	ToEasyyy4u@protonmail[.]com	1FnERg6NMCZeB9jgUtJT6G9uqfwQ3uJYpj
3	secondgroupe@mail2tor[.]com	199EPfkH6t1iXZNp5H8QYwHwHELLWxARRh
4	alka@protonmail[.]com	1NTKmeeLp52y9oZVfVZEdUCJBK9xhTcZNW
5	Odayservicers@gmail[.]com	13xVHparL62HuG8mRm42CBTZT6MtnrSytC
6	chimera@secmail[.]pro	1Pyy5WHoqQeGk9zKn9f72uL4hbF5mhf7ec
7	ransunlock@protonmail[.]com	1LSstcRAu1xGueBJRuyUgHi18PEPHxztvR
8	pc.master@aol[.]com	1X3eCf1JriycNiWwpNHyQamZS1pApE8XX
9	contactfordecrypt@secmail[.]pro	N/A
10	greats32@mail2tor.com	bc1qnuk0z8zy4ndna4x0ay7548fg7wcvyzzz59fll3

## Victim Blockchain Analysis

Total Amount these RaaS Affiliates Made: \$83.46



	TRANSACTIONS 1/1	
	то	VALUE COIN USD
5 years ago (Ranion Ransomware): (secondgroupe@mail2tor[.]com (199EP))	1o7CU8RK15qX2ZBPmdUeJ69enkyTMenQx	0.001 U BTC \$12.61
3 5 years ago (Ranion Ransomware): (Odayservicers@gmail[.]com (13xVH)	3GcfiuXfVCYZCs57jXuMuj1zjC3iima5Us (+1)	0.002 0 BTC \$14.71
0 5 years ago 1GVn4j3771qL1w2LQy5PfAUfS5h8GmtYxL	Ranion Ransomware : (Odayservicers@gmail[.]com (13xVH)	0.002 () BTC \$14.71
6 years ago 1JW52GEwLRCPftiPVCEjwXvBpQfvRV9t2B	(Ranion Ransomware): (secondgroupe@mail2tor[.]com (199EP))	0 🕛 BTC \$1.21
6 years ago 1no21NrCdahopWKtFCmrNHnJCovguVN9M	Ranion Ransomware : (secondgroupe@mail2tor[.]com (199EP)	0 🕛 BTC \$1.16
6 years ago 1DDhvJeb37VtJMmwL4YxTFuNWj4Kri2GDb	Ranion Ransomware : (secondgroupe@mail2tor[.]com (199EP)	0.001 DBTC \$7.46
6 years ago 1AW3D6sdE9qRiH84DygjFoa7QSmH7h7Ape (+1)	Ranion Ransomware : (alka@protonmail[.]com (1NTKm)	0.003 0 BTC \$3.94
0 6 years ago (Ranion Ransomware): (alka@protonmail[.]com (1NTKm)	1AS2onhGnqhhmWxRrHYewXr7jLk4eeQdeM (+1)	0.013 0 BTC \$15.80
0 6 years ago 1HEWmvjeefaK8LJUg7cjB15yqSwDMYmHj	Ranion Ransomware): (alka@protonmail[.]com (1NTKm)	0.01 () BTC \$11.86

## **Ranion Operator Diamond Model**

**Victim** 



usrfiles[.]com

Tor Services BTC Wallet(s)

**Email Communications** 

Adversary

Type: RaaS

Origin: Unknown, English-speaking

Motivation: Profit-driven

**Activity:** 

Appeared (2016), Disappeared (2022),

Received BTC and Samples (2023)





X

**Capabilities** 

Targeting: Spam Campaigns

**Locations:** Global **Systems:** Windows

Attachments
PDFs disguis

PDFs disguised as EXEs

**THROUGH:** Windows

**IN:** Phishing Email

LOLBin CertUtil.exe

**OUT:** Ranion Ransomware

## **Practical Cybercrime Intelligence**

Methodical Investigations

Discovery – Identifying Ranion

Interaction – Visiting The Site

Extraction – Gathering Information

Research – Additional Context

Pivoting – Widen The Scope

Profiling – Summarize Your Results