# The TIP of the Stinger: Efficiently Using Threat Intelligence With TheHive

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Information Security Engineer



# Who Am I And What Am I Talking About?

# What is Threat Intelligence?

"Threat intelligence is evidence-based knowledge, including context, mechanisms, indicators, implications and actionable advice, about an existing or emerging menace or hazard to assets that can be used to inform decisions regarding the subject's response to that menace or hazard." --Gartner \*

### Definition: Threat Intelligence













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Analyst(s): Rob McMillan

#### Summary

Threat intelligence is evidence-based knowledge, including context, mechanisms, indicators, implications and actionable advice, about an existing or emerging menace or hazard to assets that can be used to inform decisions regarding the subject's response to that menace or hazard.

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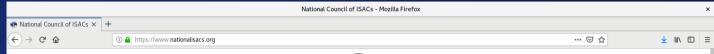
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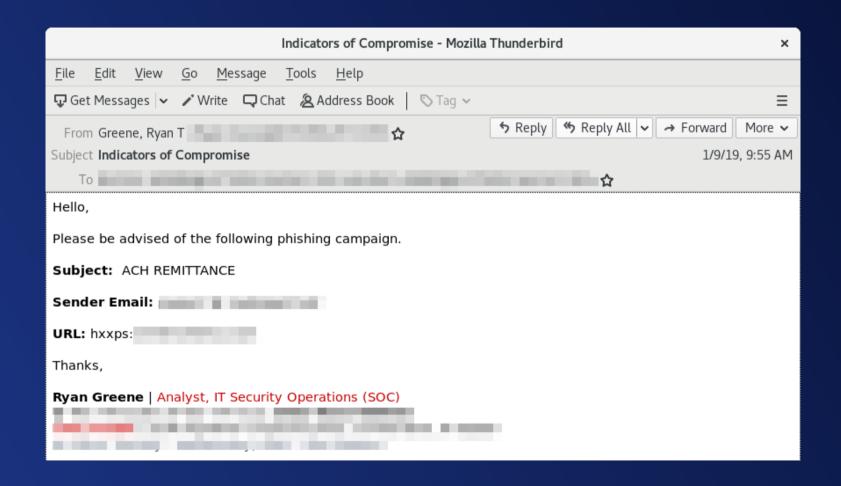
Not-So-Bold Predictions: ISACs Continue Close Collaboration in 2019...

Scott Algeier interviews NCI Chair Denise Anderson for Episode 1 of IT-ISAC's new podcast.

#### READ MORE

Sector-based Information Sharing and Analysis Centers collaborate with each other via the National Council of ISACs. Formed in 2003, the NCI today comprises 24 organizations. It is a coordinating body designed to maximize information flow across the private sector critical infrastructures and with government. Critical infrastructures sectors and subsectors that do not have ISACs are invited to contact the NCI to learn how they can participate in NCI activities.

Information Sharing and Analysis Centers help critical infrastructure owners and operators protect their facilities, personnel and customers from cyber and physical security threats and other hazards. ISACs collect, analyze and disseminate actionable threat information to their members and provide members with tools to mitigate risks and enhance resiliency. ISACs reach deep into their sectors, communicating critical information far and wide and maintaining sector-wide situational awareness.







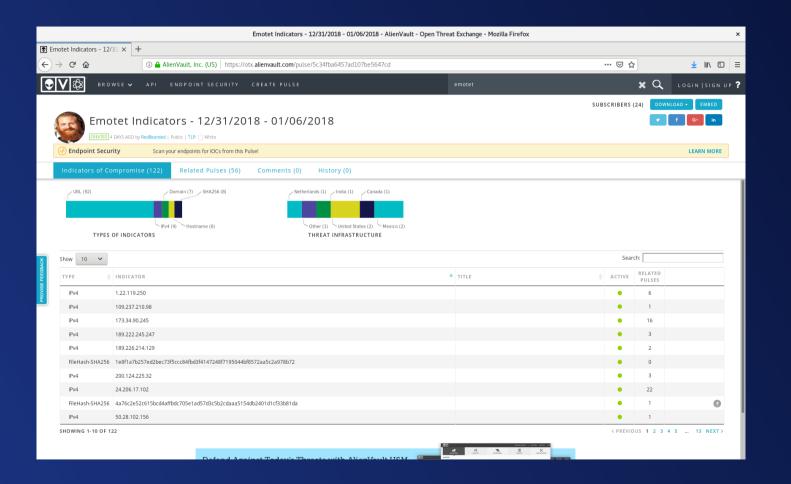


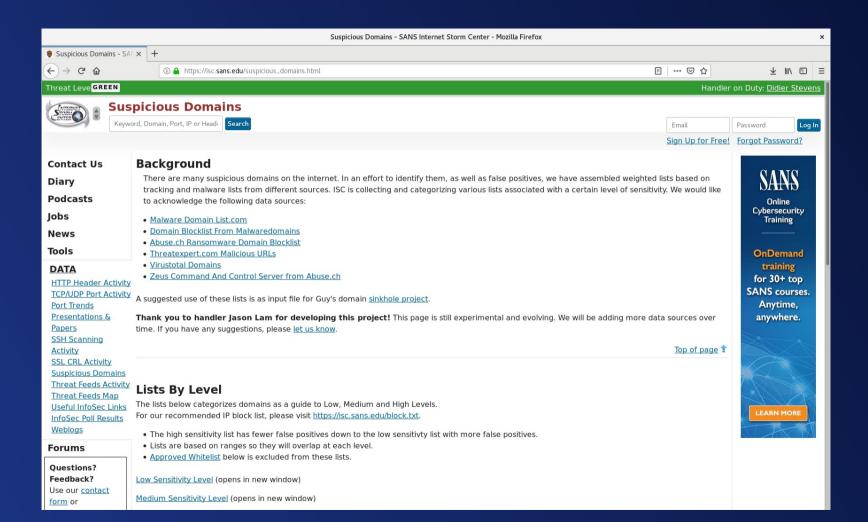
#### 👢 WARNING 👃

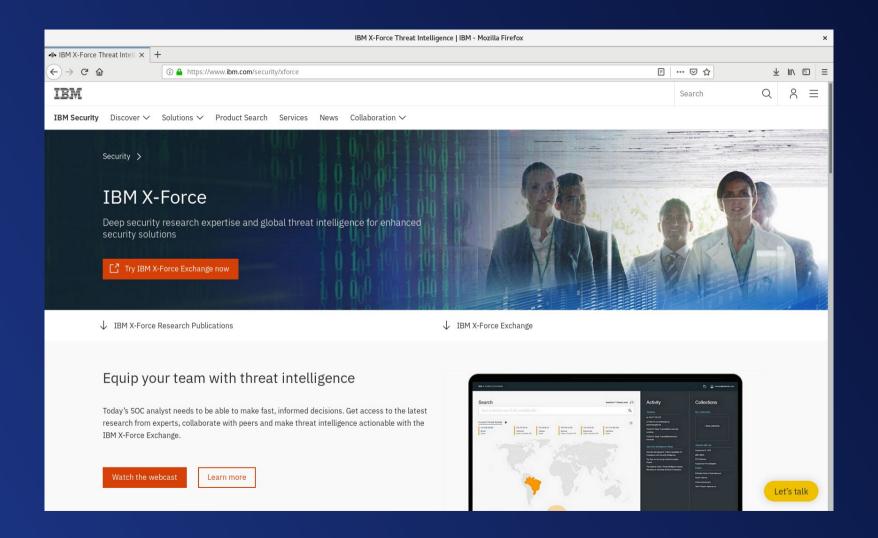
Incoming scans detected from multiple hosts looking for exposed Home Network Administration Protocol (HNAP) endpoints.

Multiple D-Link DIR series routers suffer from insecure implementations of HNAP that allow unauthenticated users to modify the device's settings.

Source IP	ASN	Autonomous System	Country	Method	URI	Date Last Seen
185.53.88.44	AS133229	Host Palace Internet Services	Netherlands	GET	/HNAP1/	2019-01-06T14:24:18-0800
212.83.169.139	AS12876	Online S.a.s.	France	GET	/HNAP1/	2019-01-06T13:26:27-0800
178.34.162.253	AS12389	Rostelecom	Russia	GET	/HNAP1/	2019-01-06T13:20:55-0800
62.4.15.51	AS12876	Online S.a.s.	France	GET	/HNAP1/	2019-01-06T04:59:04-0800
108.33.213.8	AS5650	Frontier Communications of America Inc.	United States	GET	/HNAP1/	2019-01-05T06:24:04-0800
194.242.103.166	AS31685	TOV Teleradiocompany TIM	Ukraine	GET	/HNAP1/	2019-01-05T02:54:31-0800
37.150.169.106	AS9198	JSC Kazakhtelecom	Kazakhstan	GET	/HNAP1/	2019-01-05T00:05:52-0800
2.95.62.204	AS3216	PVimpelCom	Russia	GET	/HNAP1/	2019-01-04T20:18:10-0800
41.77.103.216	AS37515	ICONNECT	South Africa	GET	/HNAP1/	2019-01-04T06:01:56-0800
182.18.177.27	AS18229	CtrlS Datacenters Ltd.	India	GET	/HNAP1/	2019-01-03T20:56:48-0800
178.150.105.217	AS13188	Content Delivery Network Ltd	Ukraine	GET	/HNAP1/	2019-01-02T08:00:04-0800
46.166.151.84	AS43350	NForce Entertainment B.V.	Netherlands	GET	/HNAP1/	2018-12-31T13:37:56-0800







### So How Do We Use It?



## MISP

- MISP is an open source Threat Intel Platform
- Collects, sanitizes, and disseminates IOCs
- Supports tagging, TLP, galaxies, taxonomies, and much more
- Robust import and export capabilities
- This is an excellent "system of record"

# Getting Data Into MISP

- Manual entry in web console
- Import local MISP JSON or CSV files
- Share data with other MISP instances
- Import .IOC files, Threatconnect, PDF, etc.
- Many third party extensions and add-ons

## How Does MISP Structure Data?

- Events
- Attributes
- Tags
- Threat and Analysis Level
- Distribution



## TheHive

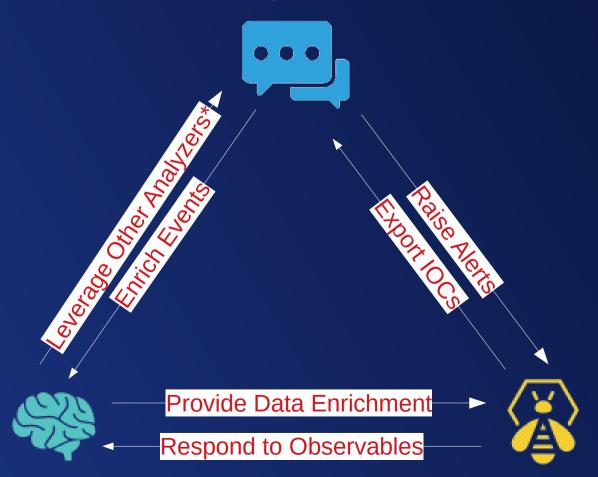
- TheHive is an open source SOAR platform
- Allows real-time IR collaboration
- Dashboards and reporting
- Integrates with MISP for threat intel functions
- Alerts, Cases, and Case Templates
- New observables can export back to MISP



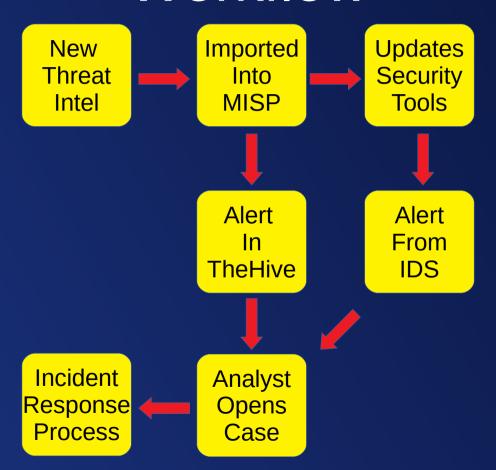
## Cortex

- Cortex is an IR automation solution
- "Analyzers" allow enrichment of IOC data
- "Responders" allow scripted responses
- Integrates tightly with TheHive and MISP

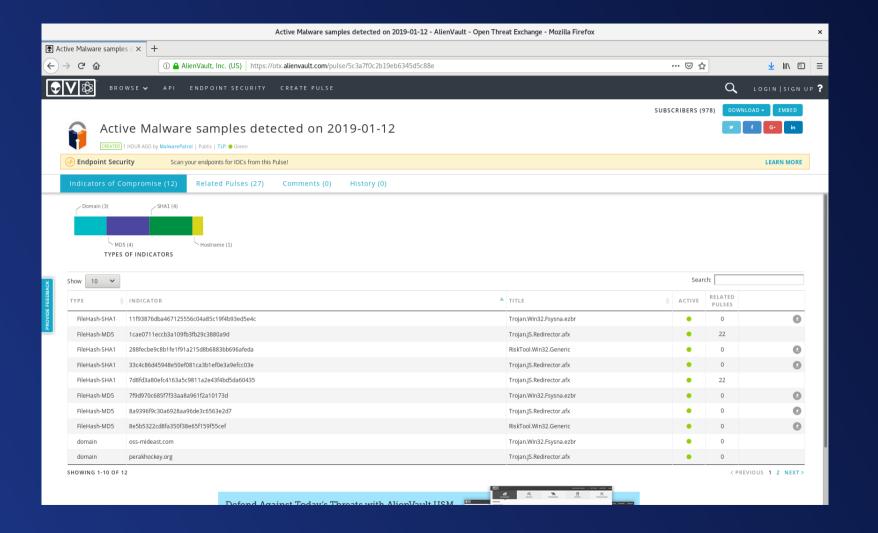
# Integration



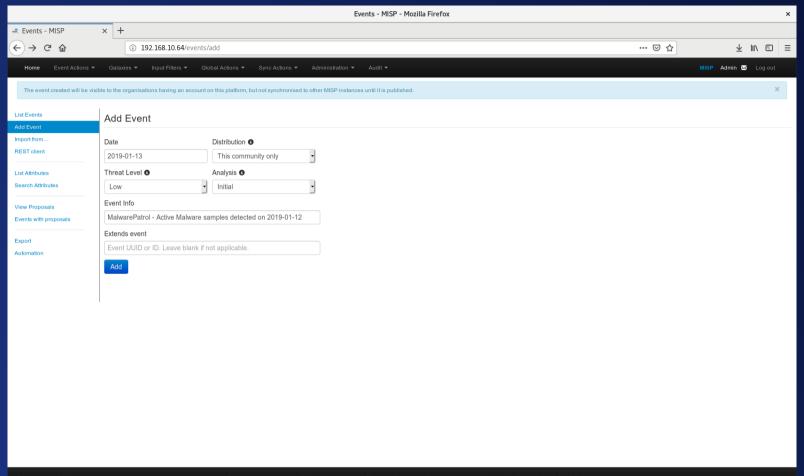
## Workflow

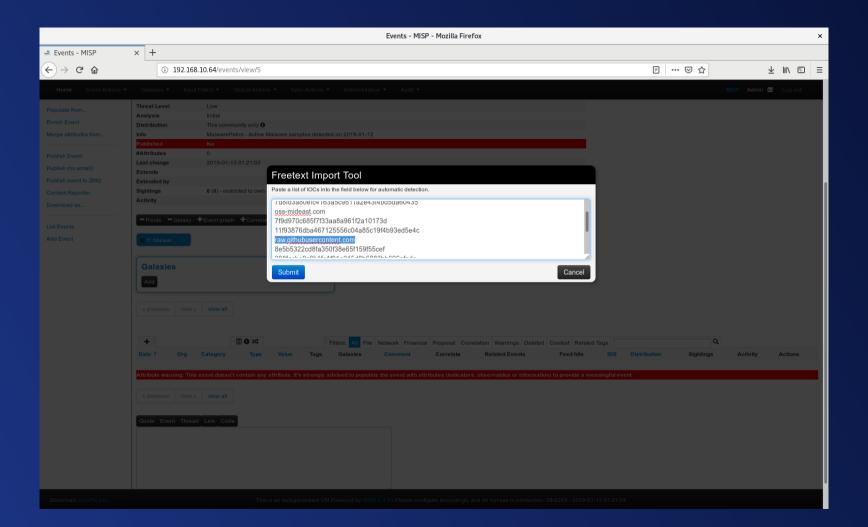


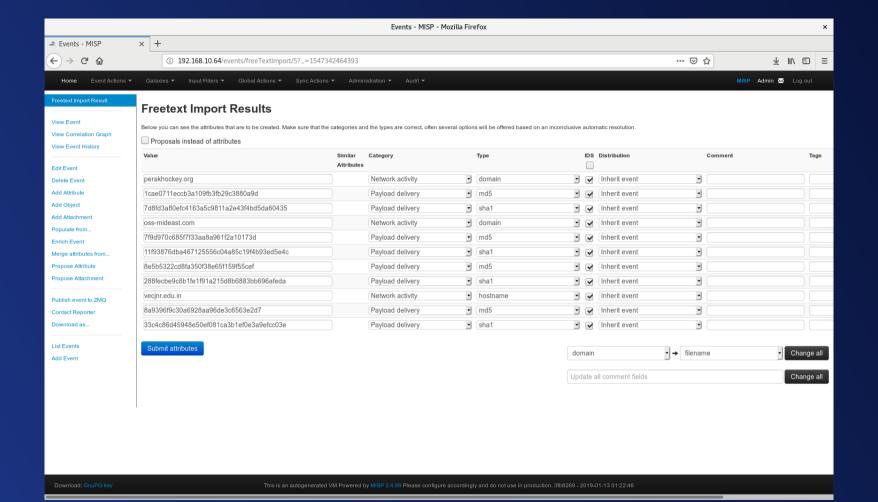
## Demonstration

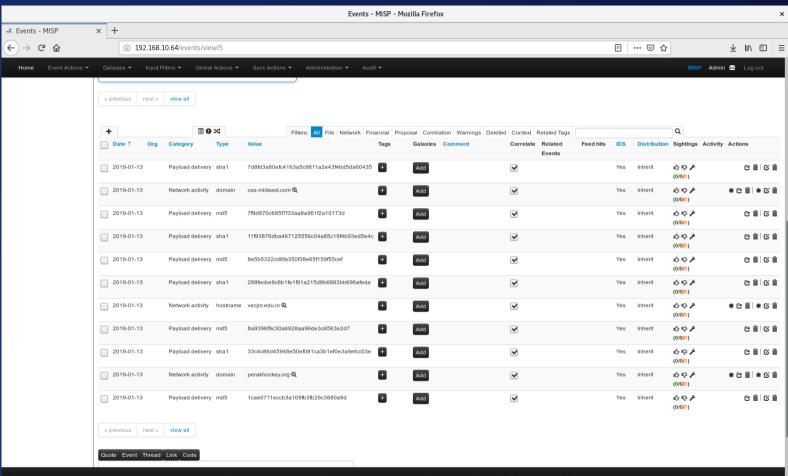


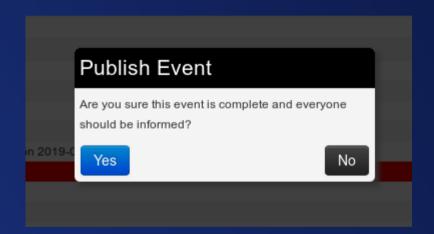
	A	В	С
1	Indicator type	Indicator	Description
2	domain	perakhockey.org	
3	FileHash-MD5	1cae0711eccb3a109fb3fb29c3880a9d	
4	FileHash-SHA!	7d8fd3a80efc4163a5c9811a2e43f4bd5da60435	
5	domain	oss-mideast.com	
6	FileHash-MD5	7f9d970c685f7f33aa8a961f2a10173d	
7	FileHash-SHA!	11f93876dba467125556c04a85c19f4b93ed5e4c	
8	hostname	raw.githubusercontent.com	
9	FileHash-MD5	8e5b5322cd8fa350f38e65f159f55cef	
10	FileHash-SHA!	288fecbe9c8b1fe1f91a215d8b6883bb696afeda	
11	domain	vecjnr.edu.in	
12	FileHash-MD5	8a9396f9c30a6928aa96de3c6563e2d7	
13	FileHash-SHA!	33c4c86d45948e50ef081ca3b1ef0e3a9efcc03e	

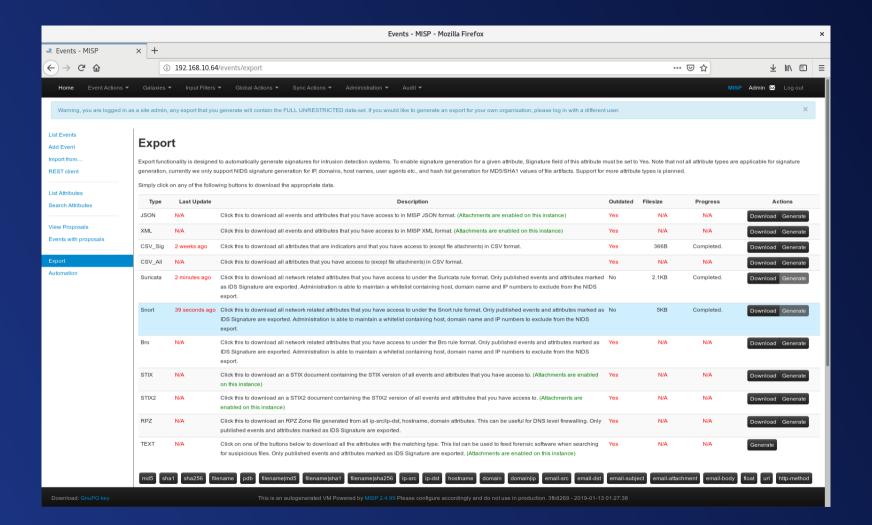










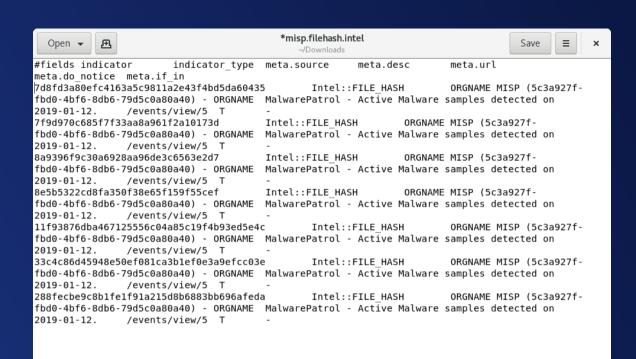


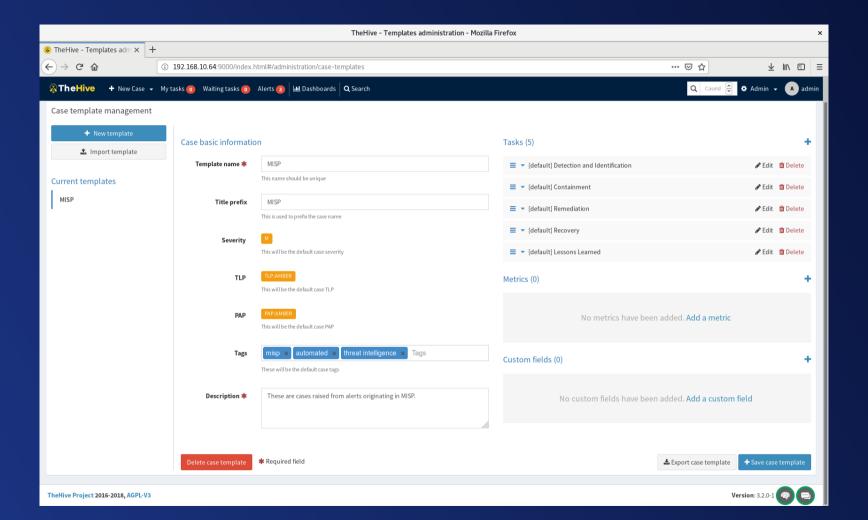
alert udp any any -> any 53 (msg: "MISP e5 [] Domain: perakhockey.org"; content: "|01 00 00 00 00 00 00 00 00 00 00 |"; depth:10; offset:2; content: "|0b|perakhockey|03|org|00|"; fast\_pattern; nocase; classtype:trojan-activity; sid:4000101; rev:1; priority:3; reference:url,/events/view/5;) alert tcp any any -> any 53 (msg: "MISP e5 [] Domain: perakhockey.org"; content: "|01 00 00 01 00 00 00 00 00 |"; depth:10; offset:2; content: "|0b|perakhockey|03|org|00|"; fast\_pattern; nocase; flow:established; classtype:trojan-activity; sid:4000102; rev:1; priority:3; reference:url,/events/view/5;) alert tcp \$HOME\_NET any -> \$EXTERNAL\_NET \$HTTP\_PORTS (msg: "MISP e5 [] Outgoing HTTP Domain: perakhockey.org"; flow:to\_server,established; content: "Host|3a|"; nocase; http\_header; content: "perakhockey.org"; fast\_pattern; nocase; http\_header; pcre: "/(^|[^A-Za-z0-9-\]/H"; tag:session,600,seconds; classtype:trojan-activity; sid:

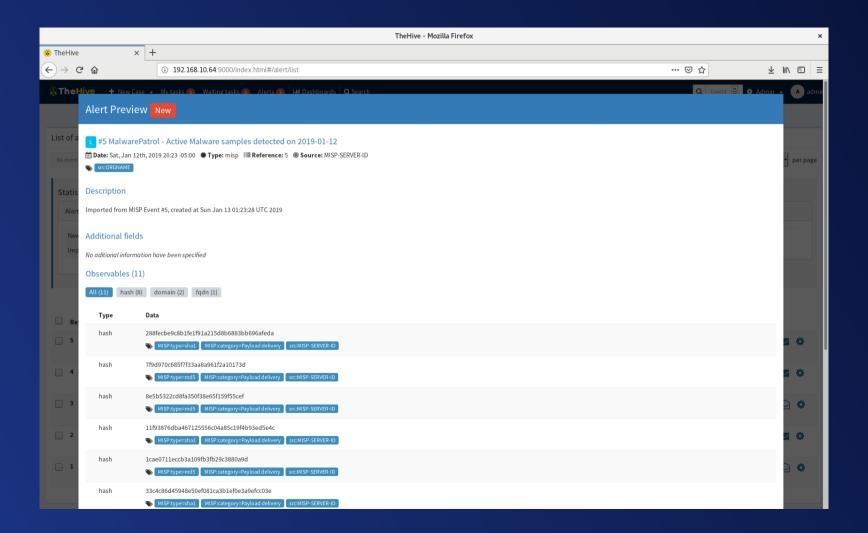
content:"perakhockey.org"; fast\_pattern; nocase; http\_header; pcre: "/(^|[^A-Za-zo-9-])perakhockey.org[^A-Za-zo-9-\.]/H"; tag:session,600,seconds; classtype:trojan-activity; sid:4000103; rev:1; priority:3; reference:url,/events/view/5;)
alert udp any any -> any 53 (msg: "MISP e5 [] Domain: oss-mideast.com"; content:"|01 00 00 01 00 00 00 00 00|"; depth:10; offset:2; content:"|0b|oss-mideast|03|com|00|"; fast\_pattern; nocase; classtype:trojan-activity; sid:4000131; rev:1; priority:3; reference:url,/events/view/5;)
alert tcp any any -> any 53 (msg: "MISP e5 [] Domain: oss-mideast.com"; content:"|01 00 00 01 00 00 00 00 00|"; depth:10; offset:2; content:"|0b|oss-mideast|03|com|00|"; fast\_pattern; nocase; flow:established; classtype:trojan-activity; sid:4000132; rev:1; priority:3; reference:url,/events/view/5;)

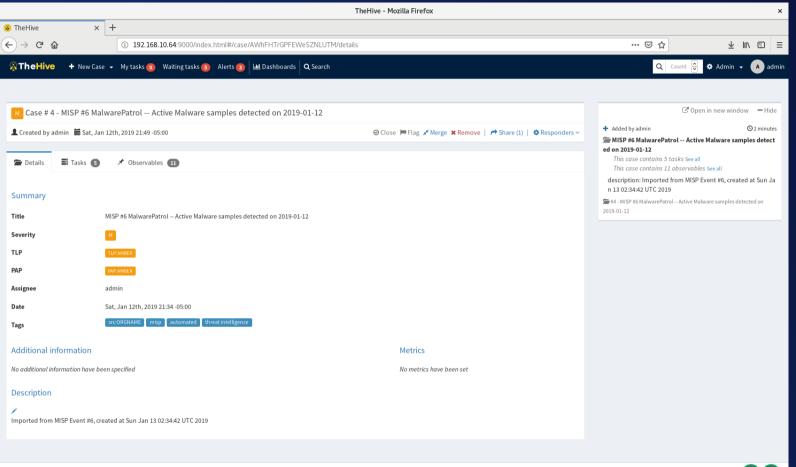
alert tcp \$HOME\_NET any -> \$EXTERNAL\_NET \$HTTP\_PORTS (msg: "MISP e5 [] Outgoing HTTP Domain: oss-mideast.com"; flow:to\_server,established; content: "Host|3a|"; nocase; http\_header; content: "oss-mideast.com"; fast\_pattern; nocase; http\_header; pcre: "/(^|[^A-Za-z0-9-])oss\-mideast\.com[^A-Za-z0-9-\.]/H"; tag:session,600,seconds; classtype:trojan-activity; sid:4000133; rev:1; priority:3; reference:url,/events/view/5;)
alert udp any any -> any 53 (msg: "MISP e5 [] Hostname: vecjnr.edu.in"; content: "|01 00 00 01 00 00 00 00 00 00 00 "; depth:10; offset:2; content: "|00||06|vecjnr|03|edu|02|in|00|"; fast\_pattern; nocase; classtype:trojan-activity; sid:4000181; rev:1; priority:3; reference:url,/events/view/5;) alert tcp any any -> any 53 (msg: "MISP e5 [] Hostname: vecjnr.edu.in"; content: "|01 00 00 01 00 00 00 00 00 00 00 00 00; depth:10; offset:2; content: "|00||06|vecjnr|03|edu|02|in|00|"; fast\_pattern; nocase; flow:established; classtype:trojan-activity; sid:4000182; rev:1; priority:3; reference:url,/events/view/5;)
alert tcp \$HOME NET any -> \$EXTERNAL NET \$HTTP PORTS (msg: "MISP e5 [] Outgoing HTTP Hostname:

vecjnr.edu.in"; flow:to\_server,established; content: "Host|3a| vecjnr.edu.in"; nocase;
http\_header; pcre: "/(^[c^A-Za-z0-9-\.])vecjnr\.edu\.in[^A-Za-z0-9-\.]/H"; tag:session,
600,seconds; classtype:trojan-activity; sid:4000183; rev:1; priority:3; reference:url,/events/view/
5;)

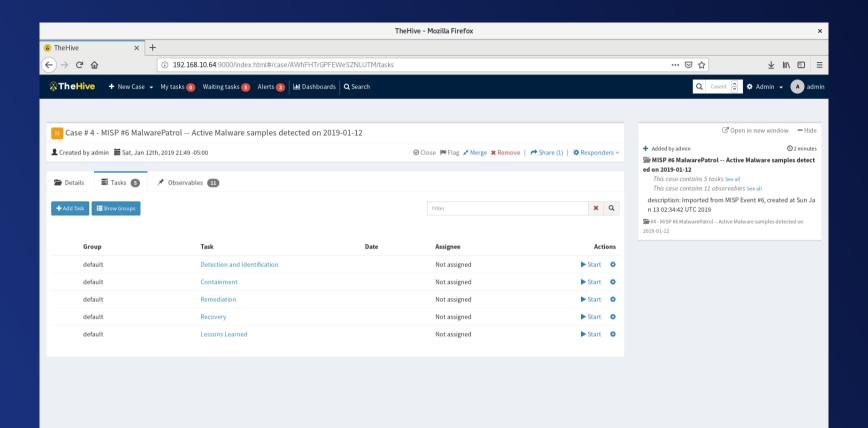




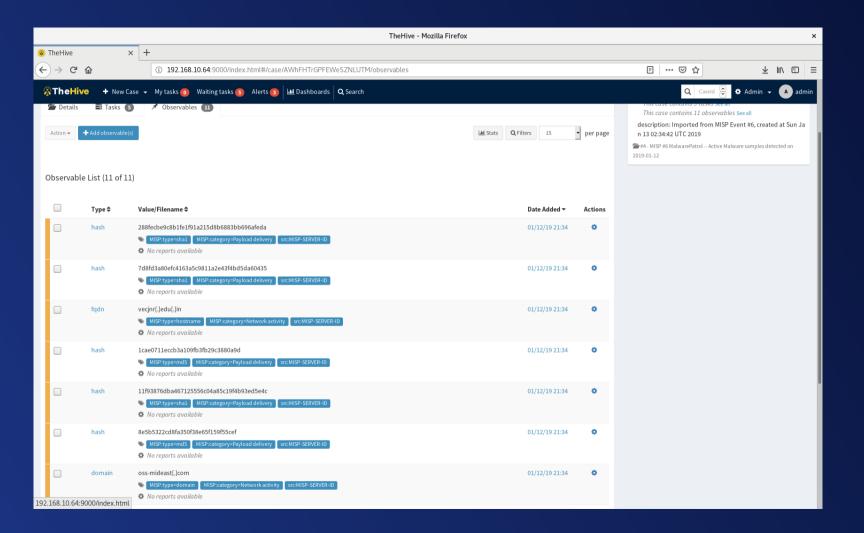


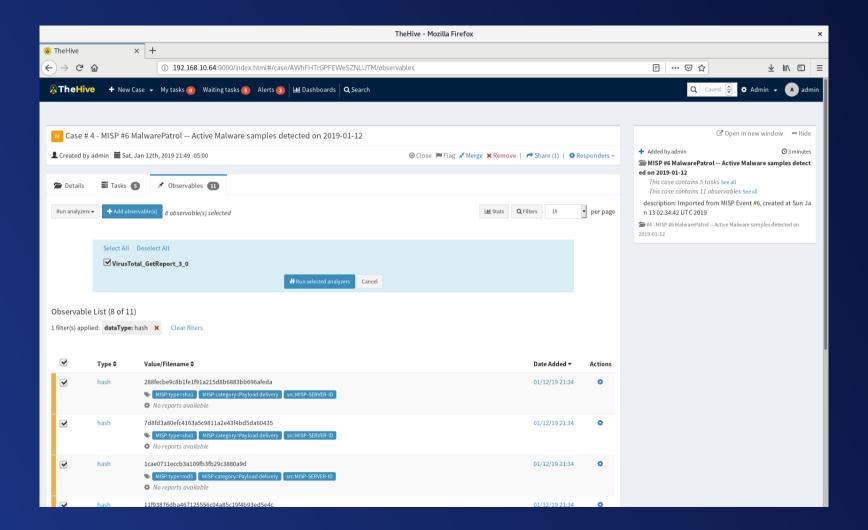


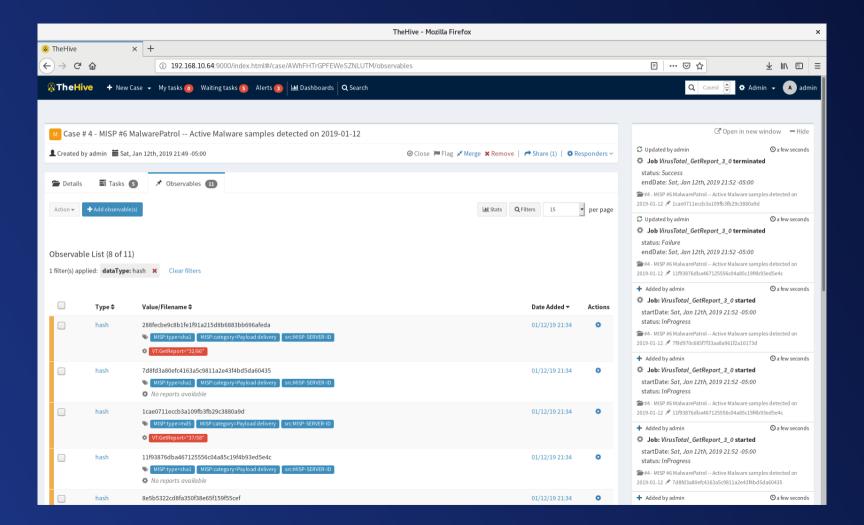
TheHive Project 2016-2018, AGPL-V3



TheHive Project 2016-2018, AGPL-V3







## How Can I Play With This?

- There's a MISP / TheHive / Cortex VM image available from the MISP team.
- https://www.circl.lu/misp-training-images/

# Questions?

## For More Information

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- infosecgoon@roadflares.org

https://github.com/InfosecGoon/stinger/