



Sistemas de Honey pots - T-Pot

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AGENDA

- O que são Honeypots
- Utilidades de ter um Sistema de honeypots
- Nossos Objetivos em ter um Sistema de Honeypots
- T-Pot



Honeypots



- O termo "**honeypot**" tem sido usado para representar uma "**isca**"
- Em **cibersegurança**, uma honeypot é uma ferramenta de segurança que funciona como um **sistema de rede** usado como uma **armadilha para ciber-ataques**
- Honeypots auxiliam a ganhar conhecimento sobre diferentes métodos de ataques usados por atacantes e suas identidades



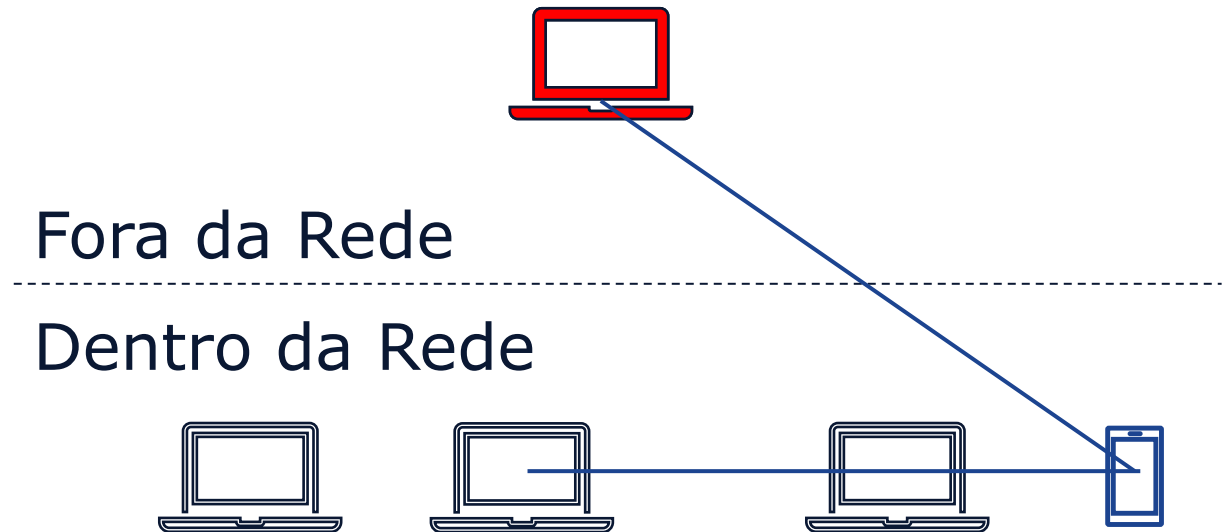
Por que usar Honeypots

- Distração para atacantes = tempo para elaborar estratégia de defesa
- Separar actividades de tráfego legítimas de actividades maliciosas
- Conhecimento sobre vulnerabilidades no sistema
- Treinar a equipa de segurança
- Baixo custo de implementação e muitos softwares open source



Nossos Objectivos

- Detetar movimentos laterais

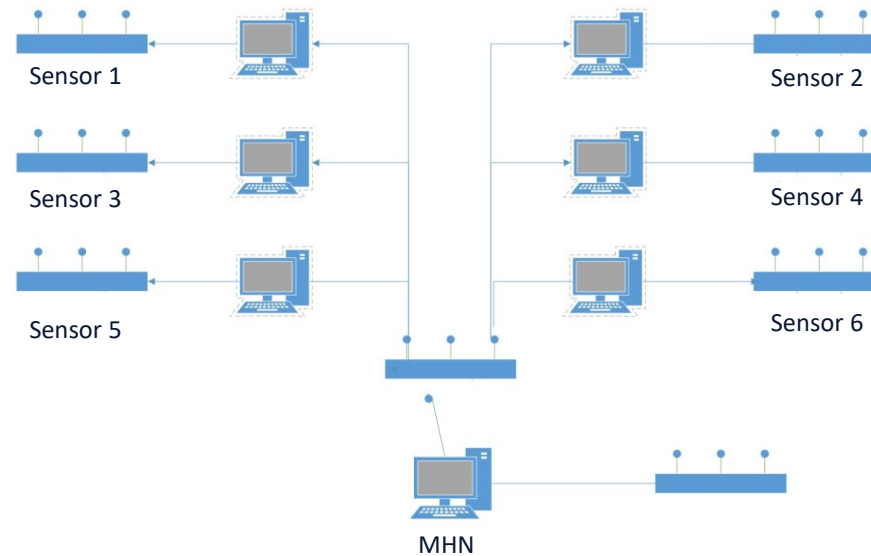




Nossos Objectivos

- 2018: Primeiro sistema de honeypots – Modern Honey Network (MHN)



- Cowrie
- Dionaea
- Glastopf



- Suricata



Mudança para o sistema T-Pot

- Framework open source de gestão de honeypots
- 20 tipos de Honeypots
- Elastic Stack  elastic
- Debian 11 (Bullseye) 
- Docker 





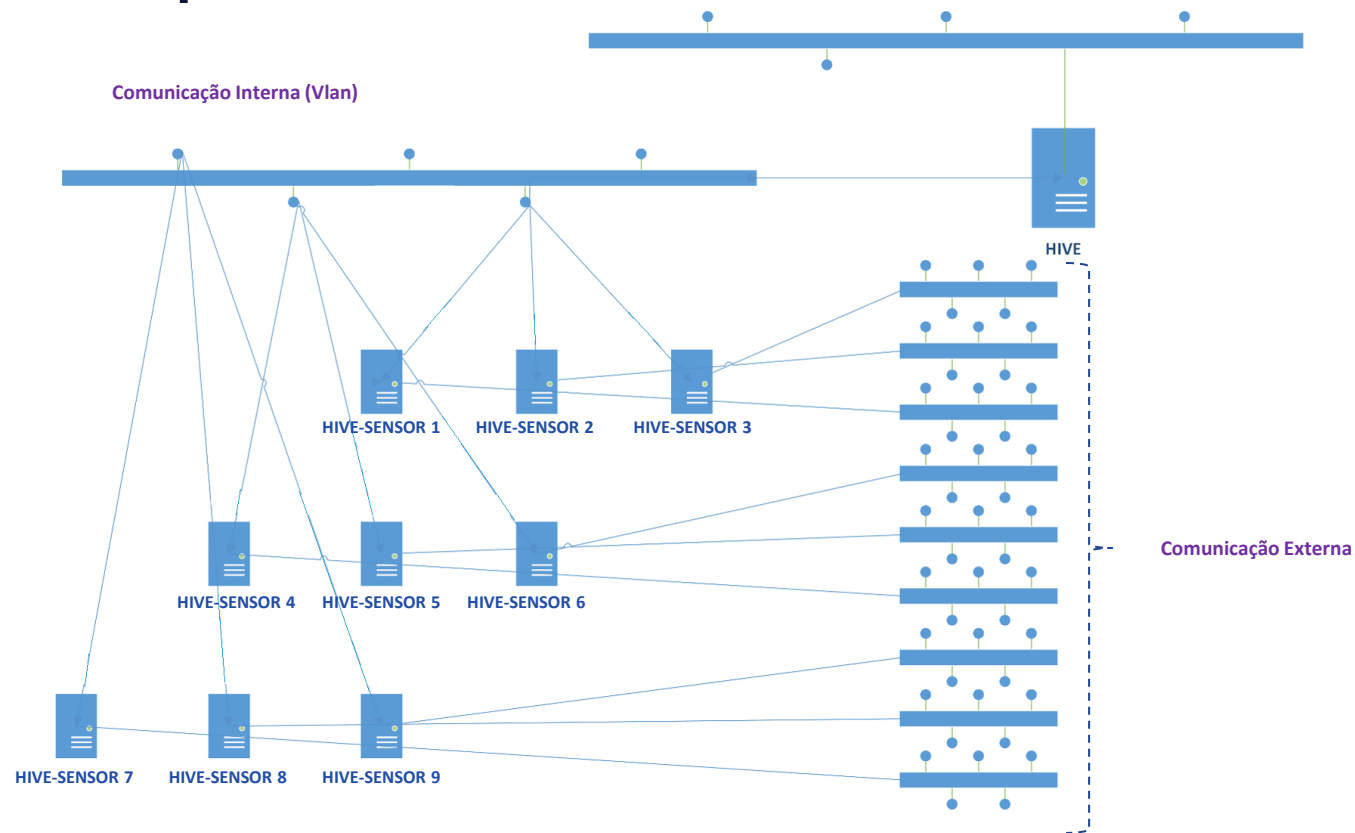
Características do T-Pot

- Hive:
 - Elastic Stack (logstash, elasticsearch, kibana)
 - Nginx
 - Cyberchef
 - Spiderfoot
 - T-Pot Attack Map
- Hive-Sensor:
 - Adbhoney; Ciscoasa; CitrixHoneytrap; ConPot; Cowrie; Ddospot; Dicompot; Dionaea; ElasticPot; Heralding; Honeytrap; Ipphoney; Mailoney; Medpot; Redishoneytrap; Sentrypeer; Snare; Tanner
 - Suricata, P0f, Fatt





Atual Set-Up





11:04

Good morning 🍳



Attack Map

Cockpit

Cyberchef

Elasticvue

Kibana

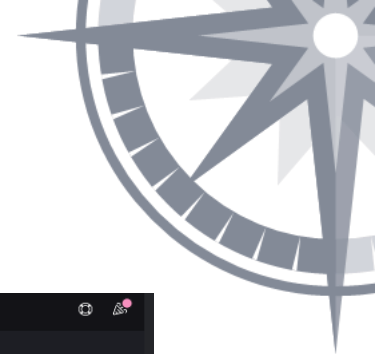
Spiderfoot



SecurityMeter

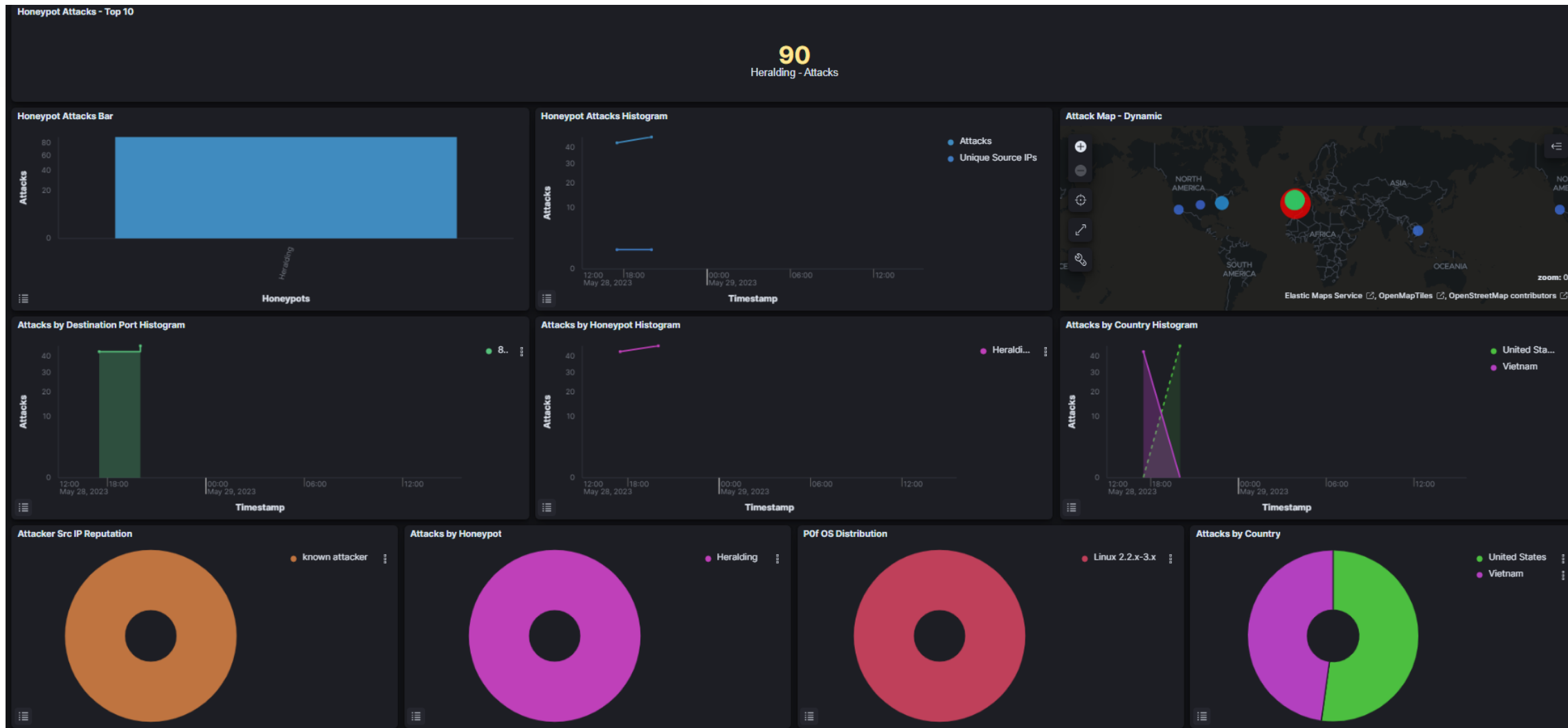
T-Pot @ GitHub

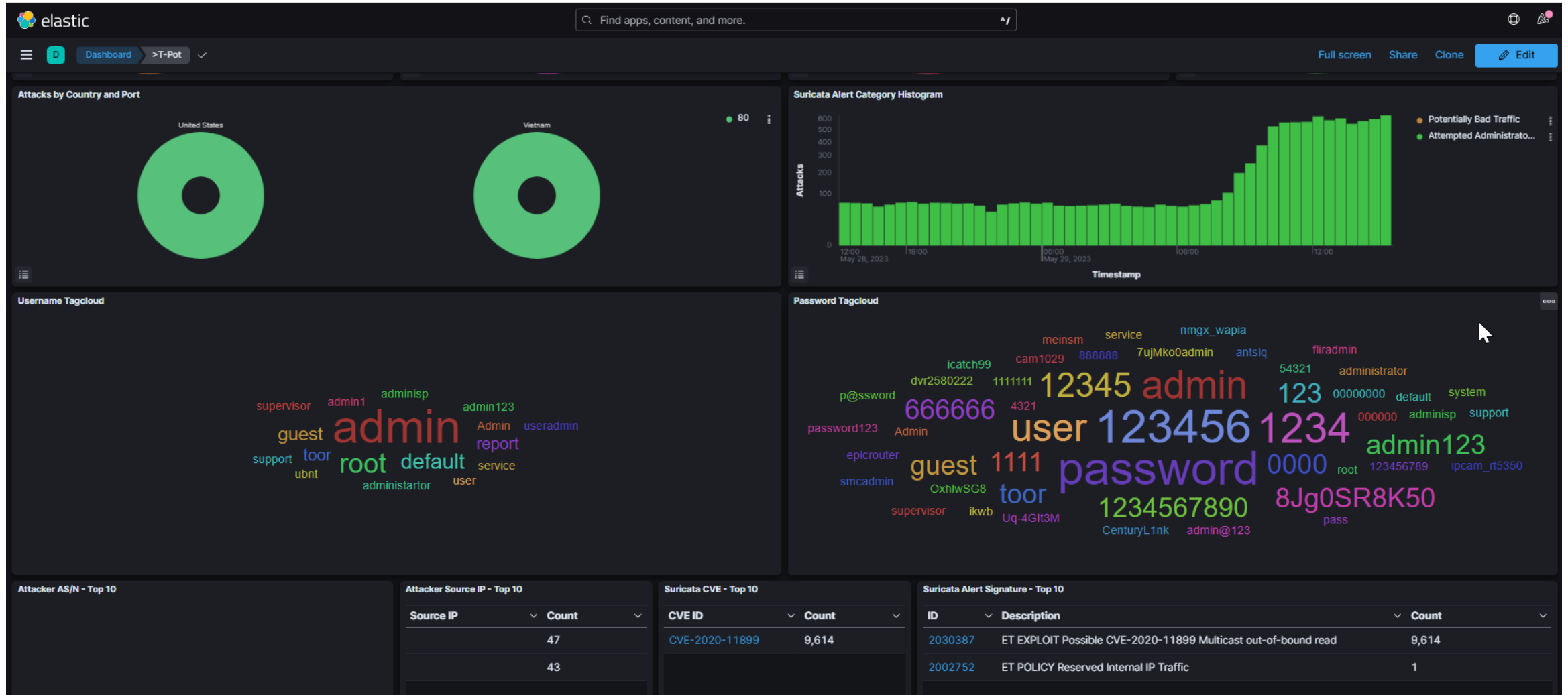
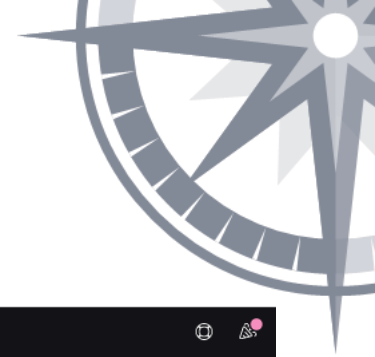
T-Pot ReadMe

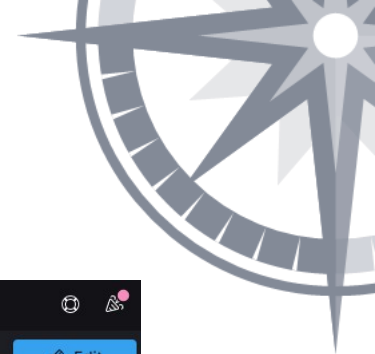


The screenshot shows the Elastic dashboard interface. At the top, there is a search bar with the text "Find apps, content, and more." Below the search bar, the dashboard displays a list of honeypot dashboards. Each entry includes a checkbox, the dashboard name, a list of associated honeypot types, the date "May 24, 2022", and an edit icon.

Dashboard Name	Honeypot Types	Date
qHoneybots Dashboard for qeeqbox's Honeybots	Honeybots, T-Pot	May 24, 2022
Tanner Dashboard	T-Pot, Tanner	May 24, 2022
Suricata Dashboard	Suricata, T-Pot	May 24, 2022
Sentrypeer Dashboard	Sentrypeer, T-Pot	May 24, 2022
Redishoneypot Dashboard	Redishoneypot, T-Pot	May 24, 2022
NGINX Dashboard	Nginx, T-Pot	May 24, 2022
Medpot Dashboard	Medpot, T-Pot	May 24, 2022
Mailoney Dashboard	Mailoney, T-Pot	May 24, 2022
Log4Pot Dashboard	Log4pot, T-Pot	May 24, 2022
Ipphoney Dashboard	Ipphoney, T-Pot	May 24, 2022
Honeytrap Dashboard	Honeytrap, T-Pot	May 24, 2022
Heralding Dashboard	Heralding, T-Pot	May 24, 2022







elastic

Dashboard > T-Pot Live Attack Map Full screen Share Clone Edit

type : Adbhoney Ciscoasa CitrixHoneypot ConPot Cowrie Ddospot Dicompot Dionaea ElasticPot EndlessH Glutton Hellpot Heraldng Honeytrap Honeypots Log4pot Ipphoney Mailoney Medpot Redishoneypot Last 1 minute 5 s Refresh

T-Pot Attack Map Last 24 hours rounded to the hour

Last 1 minute

0

Attacks

Last 1 hour

0

Attacks

Last 1 day

90

Attacks

Attacks Last 1 day

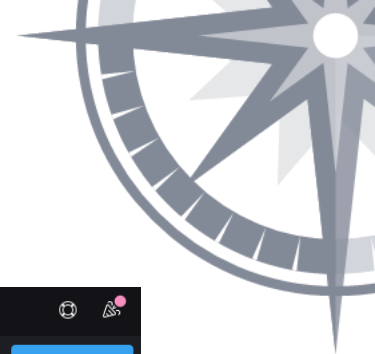
Ports Last 1 day

Countries Last 1 day

T-Pot Attack Log Last 24 hours rounded to the hour 90 documents

Columns 1 field sorted

<input type="checkbox"/>	@timestamp	T-Pot Hostn...	Type	DestPort	Country
<input type="checkbox"/>	May 28, 2023 @ 20:15:59.694		Heraldng	80	US
<input type="checkbox"/>	May 28, 2023 @ 20:15:59.412		Heraldng	80	US
<input type="checkbox"/>	May 28, 2023 @ 20:15:59.322		Heraldng	80	US
<input type="checkbox"/>	May 28, 2023 @ 20:15:59.161		Heraldng	80	US
<input type="checkbox"/>	May 28, 2023 @ 20:15:58.961		Heraldng	80	US
<input type="checkbox"/>	May 28, 2023 @ 20:15:58.883		Heraldng	80	US
<input type="checkbox"/>	May 28, 2023 @ 20:15:58.699		Heraldng	80	US



elastic

logstash-* Last 24 hours 5 m Refresh

12,256 hits

Search field names

Filter by type 0

Available fields 116

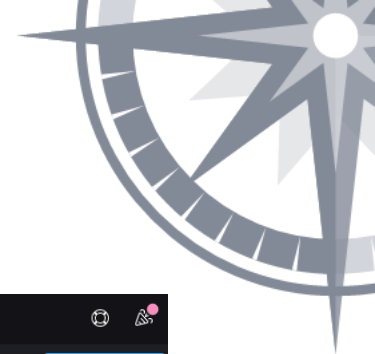
- _id
- _index
- _score
- @timestamp
- @version
- alert.action
- alert.category
- alert.cve_id
- alert.gid
- alert.metadata.created_at
- alert.metadata.former_category
- alert.metadata.performance_impact
- alert.metadata.signature_severity
- alert.metadata.updated_at
- alert.rev
- alert.severity
- alert.signature
- alert.signature_id
- app_proto
- args
- body_bytes_sent
- bytes_sent

1 field sorted

Document

@timestamp	Document
May 29, 2023 @ 15:45:59.571	<code>@timestamp May 29, 2023 @ 15:45:59.571 @version 1 alert.action allowed alert.category Attempted Administrator Privilege Gain alert.cve_id CVE-2020-11899 alert.gid 1 alert.metadata.created_at 2020_06_22 alert.metadata.former_category EXPLOIT alert.metadata.performance_impact Significant alert.metadata.signature_severity Major alert.metadata.updated_at 2020_08_20 alert.rev 2 alert.severity 1 alert.signature ET EXPLOIT Possible CVE-2020-11899 Multicast out-of-bound read alert.signature_id 2030387 dest_ip_</code>
May 29, 2023 @ 15:45:56.686	<code>@timestamp May 29, 2023 @ 15:45:56.686 @version 1 alert.action allowed alert.category Attempted Administrator Privilege Gain alert.cve_id CVE-2020-11899 alert.gid 1 alert.metadata.created_at 2020_06_22 alert.metadata.former_category EXPLOIT alert.metadata.performance_impact Significant alert.metadata.signature_severity Major alert.metadata.updated_at 2020_08_20 alert.rev 2 alert.severity 1 alert.signature ET EXPLOIT Possible CVE-2020-11899 Multicast out-of-bound read alert.signature_id 2030387 app_proto failed dest_ip_</code>
May 29, 2023 @ 15:45:54.863	<code>@timestamp May 29, 2023 @ 15:45:54.863 @version 1 alert.action allowed alert.category Attempted Administrator Privilege Gain alert.cve_id CVE-2020-11899 alert.gid 1 alert.metadata.created_at 2020_06_22 alert.metadata.former_category EXPLOIT alert.metadata.performance_impact Significant alert.metadata.signature_severity Major alert.metadata.updated_at 2020_08_20 alert.rev 2 alert.severity 1 alert.signature ET EXPLOIT Possible CVE-2020-11899 Multicast out-of-bound read alert.signature_id 2030387 dest_ip_</code>
May 29, 2023 @ 15:45:51.189	<code>@timestamp May 29, 2023 @ 15:45:51.189 @version 1 args compress=true body_bytes_sent 349 bytes_sent 848 connection_requests 1 connection_serial 1935 geoip_ext.city_name Lisbon geoip_ext.continent_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude geoip_ext.location geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 11 geoip_ext.region_name geoip_ext.timezone_</code>
May 29, 2023 @ 15:45:47.106	<code>@timestamp May 29, 2023 @ 15:45:47.106 @version 1 alert.action allowed alert.category Attempted Administrator Privilege Gain alert.cve_id CVE-2020-11899 alert.gid 1 alert.metadata.created_at 2020_06_22 alert.metadata.former_category EXPLOIT alert.metadata.performance_impact Significant alert.metadata.signature_severity Major alert.metadata.updated_at 2020_08_20 alert.rev 2 alert.severity 1 alert.signature ET EXPLOIT Possible CVE-2020-11899 Multicast out-of-bound read alert.signature_id 2030387 dest_ip_</code>
May 29, 2023 @ 15:45:44.188	<code>@timestamp May 29, 2023 @ 15:45:44.188 @version 1 args compress=true body_bytes_sent 365 bytes_sent 857 connection_requests 1 connection_serial 1933 geoip_ext.city_name Lisbon geoip_ext.continent_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude geoip_ext.location geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 11 geoip_ext.region_name geoip_ext.timezone_</code>
May 29, 2023 @ 15:45:43.691	<code>@timestamp May 29, 2023 @ 15:45:43.691 @version 1 alert.action allowed alert.category Attempted Administrator Privilege Gain alert.cve_id CVE-2020-11899 alert.gid 1 alert.metadata.created_at 2020_06_22 alert.metadata.former_category EXPLOIT alert.metadata.performance_impact Significant alert.metadata.signature_severity Major alert.metadata.updated_at 2020_08_20 alert.rev 2 alert.severity 1 alert.signature ET EXPLOIT Possible CVE-2020-11899 Multicast out-of-bound read alert.signature_id 2030387 dest_ip_</code>
May 29, 2023 @ 15:45:37.643	<code>@timestamp May 29, 2023 @ 15:45:37.643 @version 1 alert.action allowed alert.category Attempted Administrator Privilege Gain alert.cve_id CVE-2020-11899 alert.gid 1 alert.metadata.created_at 2020_06_22 alert.metadata.former_category EXPLOIT alert.metadata.performance_impact Significant alert.metadata.signature_severity Major alert.metadata.updated_at 2020_08_20 alert.rev 2 alert.severity 1 alert.signature ET EXPLOIT Possible CVE-2020-11899 Multicast out-of-bound read alert.signature_id 2030387 dest_ip_</code>
May 29, 2023 @ 15:45:34.888	<code>@timestamp May 29, 2023 @ 15:45:34.888 @version 1 alert.action allowed alert.category Attempted Administrator Privilege Gain alert.cve_id CVE-2020-11899 alert.gid 1 alert.metadata.created_at 2020_06_22 alert.metadata.former_category EXPLOIT alert.metadata.performance_impact Significant alert.metadata.signature_severity Major alert.metadata.updated_at 2020_08_20 alert.rev 2 alert.severity 1 alert.signature ET EXPLOIT Possible CVE-2020-11899 Multicast out-of-bound read alert.signature_id 2030387 dest_ip_</code>

Rows per page: 100



elastic Find apps, content, and more.

logstash-* Filter your data using KQL syntax Last 24 hours 5 m Refresh

type.keyword: Heralding

Search field names

Filter by type 0

- headers.connection
- headers.content_length
- headers.content_type
- headers.http_host
- headers.http_user_agent
- headers.http_version
- headers.request_method
- headers.request_path
- host
- ip_rep
- message
- password
- path
- proto
- session_id
- src_ip
- src_port
- T-Pot Hostname
- t-pot_ip_ext
- t-pot_ip_int
- Type
- username

90 hits

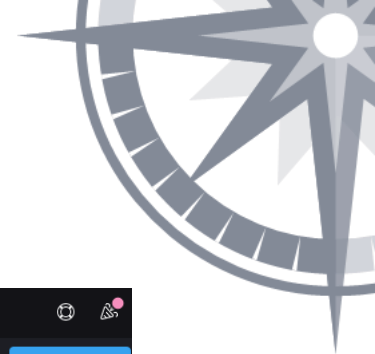
May 28, 2023 @ 15:00:00.000 - May 29, 2023 @ 15:47:20.396 (Interval: Auto - 30 minutes)

Documents Field statistics BETA

1 field sorted

@timestamp	Document
May 28, 2023 @ 20:15:59.694	<pre>@timestamp May 28, 2023 @ 20:15:59.694 @version 1 auth_id 76d678a4-e4b2-4b46-b1ac-da9e8a1a17ef dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>
May 28, 2023 @ 20:15:59.412	<pre>@timestamp May 28, 2023 @ 20:15:59.412 @version 1 auth_id 55290b2f-54af-4abc-ab66-3dee297cdc2d dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>
May 28, 2023 @ 20:15:59.322	<pre>@timestamp May 28, 2023 @ 20:15:59.322 @version 1 auth_id 8a0276e1-1dfa-40d0-88ef-701971294d5e dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>
May 28, 2023 @ 20:15:59.161	<pre>@timestamp May 28, 2023 @ 20:15:59.161 @version 1 auth_id 0c0578ae-c8c4-4fc1-a6ad-f694192a7e5f dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>
May 28, 2023 @ 20:15:58.961	<pre>@timestamp May 28, 2023 @ 20:15:58.961 @version 1 auth_id 9f5a6573-b24d-4346-a75b-dbda91a4eb96 dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>
May 28, 2023 @ 20:15:58.883	<pre>@timestamp May 28, 2023 @ 20:15:58.883 @version 1 auth_id 41e9d7c6-a9c9-403e-82c7-9dd4770f8b36 dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>
May 28, 2023 @ 20:15:58.699	<pre>@timestamp May 28, 2023 @ 20:15:58.699 @version 1 auth_id d04dab02-5773-499f-a17f-7d57ec8013f7 dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>
May 28, 2023 @ 20:15:58.609	<pre>@timestamp May 28, 2023 @ 20:15:58.609 @version 1 auth_id 2fd68fa3-2781-4651-b9da-f08213e20333 dest_ip [redacted] DestPort 80 geiop_ext.city_name [redacted] geiop_ext.continen t_code EU geiop_ext.country_code2 PT geiop_ext.country_code3 PT geiop_ext.country_name Portugal geiop_ext.ip [redacted] geiop_ext.latitude [redacted] geiop_ext.location geiop_ext.longitude [redacted] geiop_ext.postal_code [redacted] geiop_ext.region_code 06 geiop_ext.region_name [redacted] geiop_ext.timezone Europe/Lisbon geiop...</pre>

Rows per page: 100



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Discover 1. Just Honey Pots

logstash-* Filter your data using KQL syntax

NOT type.keyword: Suricata NOT type.keyword: NGINX NOT type.keyword: POF NOT type.keyword: Fatt

90 hits

May 28, 2023 @ 15:00:00.000 - May 29, 2023 @ 15:55:40.172 (Interval: Auto - 30 minutes)

Documents Field statistics BETA

password

Top values

123456	7.1%
password	7.1%
1234	5.9%
admin	4.7%
user	4.7%
12345	3.5%
0000	2.4%
1111	2.4%
123	2.4%
1234567890	2.4%
Other	57.6%

Calculated from 90 records.

Multi fields

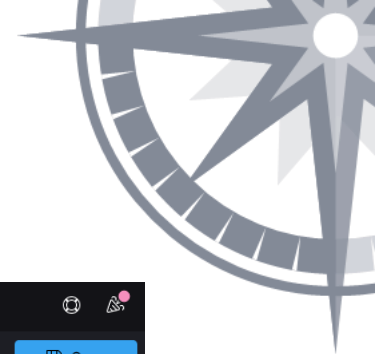
- password.keyword

Visualize

Document

```

@timestamp May 28, 2023 @ 20:15:59.694 @version 1 auth_id 76d670a4-e4b2-4b46-b1ac-da9e8a1a17ef dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip ... geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
@timestamp May 28, 2023 @ 20:15:59.412 @version 1 auth_id 55290b2f-54af-4abc-ab66-3dee297cdc2d dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip 1 geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
@timestamp May 28, 2023 @ 20:15:59.322 @version 1 auth_id 8a0276e1-1dfa-40d0-88ef-701971294d5e dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
@timestamp May 28, 2023 @ 20:15:59.161 @version 1 auth_id 0c0578ae-c8c4-4fc1-a6ad-f694192a7e5f dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
@timestamp May 28, 2023 @ 20:15:58.961 @version 1 auth_id 9f5a6573-b24d-4346-a75b-dbda91a4eb96 dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
@timestamp May 28, 2023 @ 20:15:58.803 @version 1 auth_id 41e9d7c6-a9c9-403e-82c7-9dd4770f8b36 dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
@timestamp May 28, 2023 @ 20:15:58.699 @version 1 auth_id d04dab02-5773-499f-a17f-7d57ec8013f7 dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
@timestamp May 28, 2023 @ 20:15:58.609 @version 1 auth_id 2fd68fa3-2781-4651-b9da-f08213e20333 dest_ip ... DestPort 80 geoip_ext.city_name ... geoip_ext.continen
t_code EU geoip_ext.country_code2 PT geoip_ext.country_code3 PT geoip_ext.country_name Portugal geoip_ext.ip geoip_ext.latitude / ... geoip_ext.location
geoip_ext.longitude geoip_ext.postal_code geoip_ext.region_code 06 geoip_ext.region_name Europe/Lisbon geoip...
    
```



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Visualize Library Create Explore data in Discover Inspect Download as CSV Settings Save

logstash-* Filter your data using KQL syntax Last 24 hours 5 m Refresh

NOT type.keyword: Suricata × NOT type.keyword: NGINX × NOT type.keyword: P0f × NOT type.keyword: Fatt ×

Search field names

Records

Selected fields 2

- password.keyword
- Records

Available fields 154

- @timestamp
- @version.keyword
- alert.action.keyword
- alert.category.keyword
- alert.cve_id.keyword
- alert.gid
- alert.metadata.created_at.keyword
- alert.metadata.former_category.keyword
- alert.metadata.performance_impact.keyword
- alert.metadata.signature_severity.keyword
- alert.metadata.updated_at.keyword

Table

Top 50 values of password.keyword Count of records

password.keyword	Count of records
123456	6
password	6
1234	5
admin	4
user	4
12345	3
0000	2
1111	2
123	2
1234567890	2
666666	2
8Jg0SR8K50	2
admin123	2
guest	2

Suggestions

Current visualization

90

Table

logstash-*

Rows

Top 50 values of password.keyword

Add or drag-and-drop a field

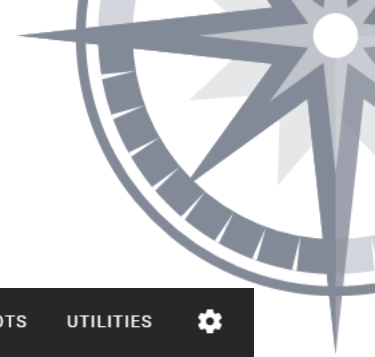
Split metrics by

Add or drag-and-drop a field

Metrics

Count of records

Add or drag-and-drop a field



Elasticvue default cluster

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Search * × ↻ [Select indices](#) ↑ [use index pattern](#) **SEARCH**

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- logstash-2023.05.16
- logstash-2023.05.17
- logstash-2023.05.18
- logstash-2023.05.19
- logstash-2023.05.20
- logstash-2023.05.21
- logstash-2023.05.22
- logstash-2023.05.23
- logstash-2023.05.24

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