



Finding relevancy

Improving your application search bar!

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Today's goal

Learn about search, relevancy and the user perspective!



The ultimate search experience



Search bar with a magnifying glass icon on the left and a microphone icon on the right.

Google Search

I'm Feeling Lucky

Google offered in: [Deutsch](#)

Advanced Search

Find pages with...

all these words:



this exact word or phrase:

any of these words:

none of these words:

numbers ranging from:

to

To do this in the search box.

Type the important words: `tri-colour rat terrier`Put exact words in quotes: `"rat terrier"`Type **OR** between all the words you want: `miniature OR standard`Put a minus sign just before words that you don't want:
`-rodent, -"Jack Russell"`Put two full stops between the numbers and add a unit of measurement:
`10..35 kg, £300..£500, 2010..2011`Then narrow your results
by...

language:



Find pages in the language that you select.

region:



Find pages published in a particular region.

last update:



Find pages updated within the time that you specify.

site or domain:

Search one site (like `wikipedia.org`) or limit your results to a domain like `.edu`, `.org` or `.gov`

terms appearing:



Search for terms in the whole page, page title or web address, or links to the page you're looking for.

SafeSearch:

Tell [SafeSearch](#) whether to filter sexually explicit content.

file type:



Find pages in the format that you prefer.

usage rights:



Find pages that you are free to use yourself.

[Advanced Search](#)

The ultimate search experience: Query intent

- stock crash 2008
- tomorrow's temperature
- barack obama age
- twitter
- cheap nike hoodie red xl

The ultimate search experience: Query intent

- Extremely generic
- Rarely needed for most web applications
- Many search use-cases are specialized
 - E-Commerce
 - News
 - Social network

E-Commerce

- Start with a full text search

The screenshot shows the Amazon.de homepage. At the top, there is a navigation bar with the Amazon logo, a search bar containing 'Alle tv 50"', and links for 'Halo, Anmelden Konto und Listen', 'Warenrücksendungen und Bestellungen', and 'Entdecken Sie Prime'. Below the navigation bar, there are links for 'Lieferadresse wählen', 'Frühe Black Friday Angebote', 'AmazonBasics', 'Bestseller', 'Prime Video', and 'Deutsche Marken unterstützen'. The main banner features the text 'Produkte mit Nachhaltigkeitszertifizierungen entdecken' and the 'CLIMATE PLEDGE FRIENDLY' logo. Below the banner, there are several promotional tiles: 'Frühe Black Friday Angebote' with sub-tiles for 'Alle Angebote', 'Blitzangebote', 'Amazon-Geräte', and 'Angebote unter 20€'; 'Top Fashion-Angebote für Damen' with sub-tiles for 'Jacken', 'Stiefel', 'Sneaker', and 'Jeans'; 'Die Ärzte: Neues Album' with a 'Jetzt streamen' link; 'Angebot des Tages' featuring 'Erdmann Fettfutter'; 'Bruce Springsteen: Neues Album'; and 'Fire TV Familie'.

E-Commerce

- Start with a full text search
- Drill down via faceted navigation

The screenshot shows the Amazon.de website interface. At the top, there's a search bar with 'tv 50\"/>

Berechtigt zum kostenfreien Versand
 GRATIS-Versand durch Amazon
Für alle Kunden mit Bestellungen über 29 € und Versand durch Amazon

Angebote
 Angebote

Kategorie
Fernseher & Heimkino
Fernseher
Heimkino, TV & Video Zubehör
Amazon-Geräte
Fire TV
Alle 13 Kategorien

Durchschn. Kundenrezension
★★★★☆ & mehr
★★★★☆ & mehr
★★★★☆ & mehr
★★★☆☆ & mehr

Marke
 LG Electronics
 Hisense
 Samsung
 AmazonBasics
 Telefunken
 Eono
 MEDION

Preis
Unter 200 EUR
200 - 400 EUR
400 - 700 EUR
700 - 900 EUR
900 - 1400 EUR
Über 1400 EUR

Grundig Vision 7 - Fire TV Edition (50 VAE 70) 127 cm (50 Zoll) Fernseher (Ultra HD, Alexa-Sprachsteuerung, HDR) [Modelljah...]
★★★★☆ ~ 76
355,89€
prime Lieferung bis Samstag, 31. Oktober
GRATIS Versand durch Amazon
Energieeffizienzklasse: A
Auflösung: 4K
Displaygröße: 50 Zoll
Technologie: LED
Bildwiederhol-frequenz: 60 Hertz

Amazon's Choice

Samsung TU7079 125 cm (50 Zoll) LED Fernseher (Ultra HD, HDR 10+, Triple Tuner, Smart TV) [Modelljahr 2020]
★★★★☆ ~ 619
419,00€ ~~469,00€~~
prime Lieferung bis Samstag, 31. Oktober
GRATIS Versand durch Amazon
Energieeffizienzklasse: A
Auflösung: 4K
Displaygröße: 50 Zoll
Technologie: LED
Bildwiederhol-frequenz: 60 Hertz

Samsung TU8079 125 cm (50 Zoll) LED Fernseher (Ultra HD, HDR10+, Triple Tuner, Smart TV) [Modelljahr 2020]
★★★★☆ ~ 721
444,90€ ~~599,00€~~
prime Lieferung bis Samstag, 31. Oktober
GRATIS Versand durch Amazon
Andere Angebote
413,76 € (22 gebrauchte und neue Artikel)
Amazon-zertifiziert: Alexa integriert
Energieeffizienzklasse: A
Auflösung: 4K
Displaygröße: 50 Zoll
Technologie: LED
Bildwiederhol-frequenz: 50 Hertz

E-Commerce

- Start with a full text search
- Drill down via faceted navigation
- Select product



amazon.de

Alle tv 50"

Hallo, Anmelden Konto und Listen

Warenrücksendungen und Bestellungen

Entdecken Sie Prime

Einkaufswagen

Hallo Lieferadresse wählen

Frühe Black Friday Angebote

AmazonBasics

Bestseller

Amazon Music: 3 Monate gratis

Fernseher & Heimkino

Bestseller

Fernseher

Beamer

Blu-ray-Player & -Rekorder

Satelliten- & TV-Receiver

Heimkinosysteme

Soundbars

Streaming

Zubehör

Frühe Black Friday Angebote 26. Oktober - 19. November

Früher einkaufen. Früher entspannen.

Zurück zu den Ergebnissen

Grundig Vision 7 - Fire TV Edition (50 VAE 70) 127 cm (50 Zoll) Fernseher (Ultra HD, Alexa-Sprachsteuerung, HDR) [Modelljahr 2020] [Energieklasse A]

Besuchen Sie den GRUNDIG-Store

★★★★☆ 76 Sternebewertungen | 57 beantwortete Fragen

Preis: 355,89 €

Preise inkl. temporär gesenkter USt. – ggf. Variation an der Kasse je nach Lieferadresse. Informationen zur gesenkten USt. in Deutschland.

Produktdatenblatt

Nutzen Sie Kauf auf Rechnung und bezahlen Sie erst im nächsten Monat.

Rückgabe bis 31. Januar 2021 - Unsere besondere Rückgabefrist zu Weihnachten | Kostenloser Amazon-Produktsupport inbegriffen

Größe: 50 Zoll

40 Zoll 43 Zoll 49 Zoll 50 Zoll 55 Zoll 65 Zoll

Stil: Ultra HD

Full HD Ultra HD Premium UHD

355,89 €

GRATIS Lieferung: Samstag, 31. Okt. Siehe Details.

Auf Lager.

Menge: 1

In den Einkaufswagen

Jetzt kaufen

Sichere Transaktion

Verkauf und Versand durch Amazon.

Der Artikel wird so versendet, dass der Inhalt sichtbar ist und nicht verborgen werden kann. Sollte es sich um ein Geschenk handeln, empfehlen wir Ihnen, eine andere Adresse für den Versand auszuwählen.

Extra Schutz? Prüfen Sie, ob die Abdeckung Ihre Bedürfnisse deckt:

2-Jahre Garantieverlängerung für 18,89 €

1-Jahr Garantieverlängerung für 13,79 €

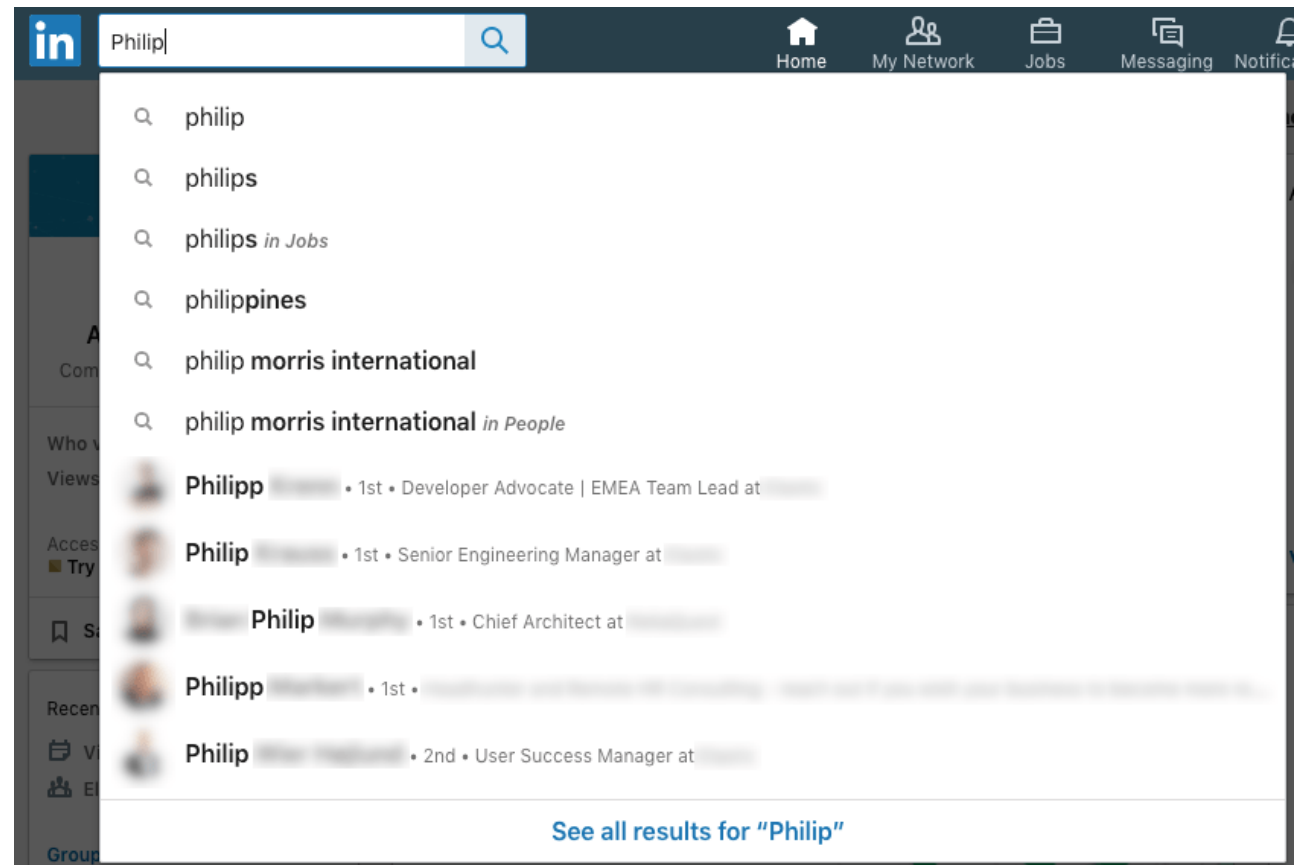
Geschenkoptionen hinzufügen

The ultimate search experience: Commercial Intent

- Scoring is never neutral, influencing factors (E-Commerce)
 - Popularity
 - Profit
 - Availability
 - Previous searches
 - Previous purchases
 - Cross/Upselling products

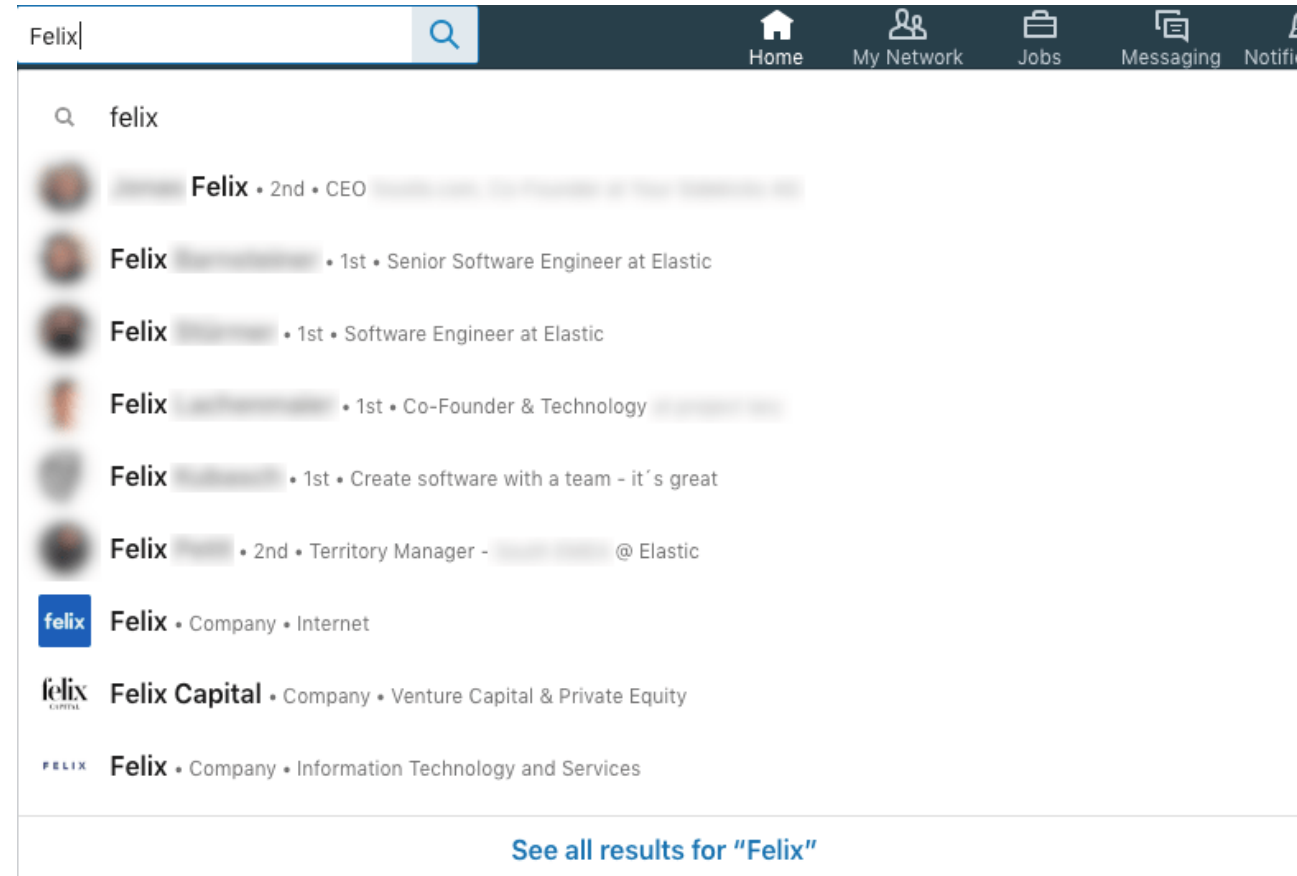
LinkedIn Search

- Search for first name
- Search for last name
- Prefix search
- 1st degree > 2nd degree
- 2nd degree > 3rd degree



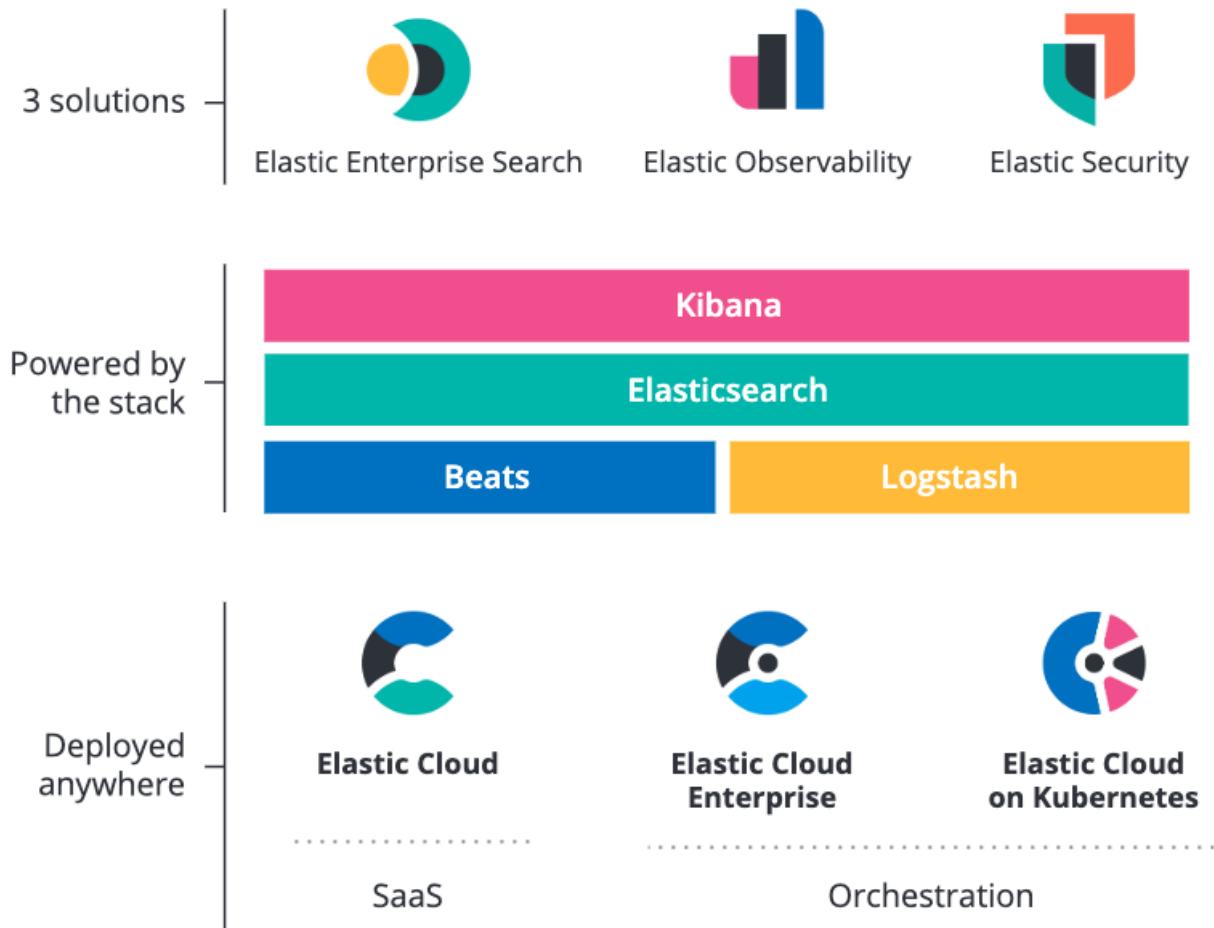
LinkedIn Search

- Rare surname more important than first name



Let's build such a person search using Elasticsearch!

Product Overview



Elastic Stack



Elasticsearch in one minute

- Search Engine (FTS, Analytics, Geo), near real-time
- Distributed, scalable, highly available, resilient
- Interface: HTTP & JSON

Sample app: Social network

- Entity: **Person**
- Fields:
 - Matching: First & last name
 - Scoring: Employer & direct contacts
 - Meta: Title & image

Sample app: Social network

```
{
  "name" : {
    "last" : "Reelsen",
    "first" : "Alexander"
  },
  "employer" : "Elastic",
  "title" : "Community Advocate",
  "image" : "1",
  "contacts" : [ "philippk", "philipk", "philipp1" ]
}
```

Demo

Run node application

```
git clone https://github.com/spinscale/social-network-search-sample
cd social-network-search-sample
npm install
# create static build
npm run build
npm run start
# or for development mode w/ livereload
npm run build
```

Install Elasticsearch

```
# https://www.elastic.co/downloads/elasticsearch
wget https://artifacts.elastic.co/downloads/elasticsearch/elasticsearch-7.9.3-darwin-x86_64.tar.gz
# wget https://artifacts.elastic.co/downloads/elasticsearch/elasticsearch-7.9.3-linux-x86_64.tar.gz
# wget https://artifacts.elastic.co/downloads/elasticsearch/elasticsearch-7.9.3-windows-x86_64.zip

tar xzf elasticsearch-7.9.3-darwin-x86_64.tar.gz
cd elasticsearch-7.9.3

./bin/elasticsearch
```

Install Kibana

```
# https://www.elastic.co/downloads/kibana
wget https://artifacts.elastic.co/downloads/kibana/kibana-7.9.3-darwin-x86_64.tar.gz
# wget https://artifacts.elastic.co/downloads/kibana/kibana-7.9.3-linux-x86_64.tar.gz
# wget https://artifacts.elastic.co/downloads/kibana/kibana-7.9.3-windows-x86_64.zip

tar xzf kibana-7.9.3-darwin-x86_64.tar.gz
cd kibana-7.9.3
./bin/kibana
```

Point your browser to <http://localhost:5601/>

Profile



Alexander Reelsen

Community Advocate at Elastic

3 Contacts

Contacts



Philip Kredible
Team Lead at Elastic



Philipp Krenn
Community Advocate at Elastic



Philipp Laughable
Senior Software Engineer at FancyWorks

Search

Score first/last name, score own contacts higher



Show query

philip



Philip Kredible

Team Lead at Elastic

Score: 2.7641907

Admin

THIS IS NOT SECURE, DO NOT RUN IN PRODUCTION, BUT ONLY FOR DEMO PURPOSES. NEVER EXPOSE ELASTICSEARCH DIRECTLY SO IT IS REACHABLE FROM YOUR BROWSER

First, you need to ensure, that Elasticsearch is set up properly by allowing CORS. This requires adding the following settings to your configuration

```
http.cors.enabled: true
http.cors.allow-origin: /https?:\\\/localhost(:[0-9]+)?/
```

Delete & Reindex Data

Summary

- Coming up with a simple query is easy
- Figuring out user intents is hard
- Coming up with a proper query will take time and tries
- Analytics & metrics are vital

Next steps

- `rank_feature` : Boost score based on numeric field value
- `vector` : Similarity search based on a feature vector

? Can you quantify search experience ?

? How to measure search improvements ?

? Continuous feedback loop ?

Thanks for listening

Q & A

Alexander Reelsen

Community Advocate

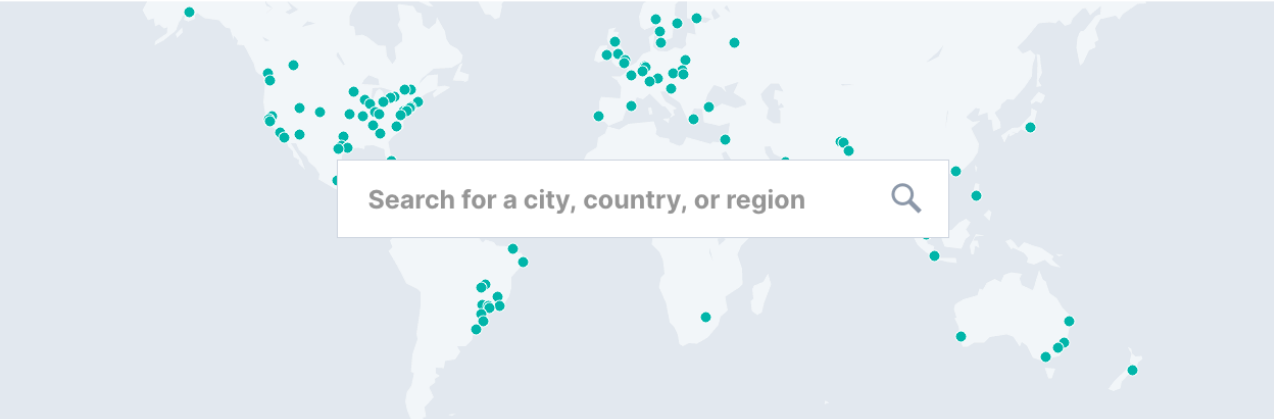
alex@elastic.co | [@spinscale](https://twitter.com/spinscale)



elastic

Resources

- [GitHub Sample Repo](#)
- [rank_feature field type documentation](#)
- [vector field type documentation](#)
- [search_as_you_type field type documentation](#)



Community & Meetups

<https://community.elastic.co>



Explore by region

Asia Pacific and Japan | **Europe, Middle East and Africa** | North and South America | Virtual

ELASTIC - BARCELONA Spain 🇪🇸	ELASTIC - COPENHAGEN Denmark 🇩🇰	ELASTIC - GOTEBORG Sweden 🇸🇪	ELASTIC - SCOTLAND United Kingdom 🇬🇧
ELASTIC - STOCKHOLM Sweden 🇸🇪	ELASTIC - TEL AVIV Israel 🇮🇱	ELASTIC - TURKEY Turkey 🇹🇷	ELASTIC BONN USER GROUP Germany 🇩🇪
ELASTIC CAMBRIDGE & EAST ANGLIA USER GROUP United Kingdom 🇬🇧	ELASTIC DUBAI USER GROUP United Arab Emirates 🇦🇪	ELASTIC FR France 🇫🇷	ELASTIC GREECE Greece 🇬🇷
ELASTIC HELSINKI Finland 🇫🇮	ELASTIC KRAKOW USER GROUP Poland 🇵🇱	ELASTIC LONDON USER GROUP United Kingdom 🇬🇧	ELASTIC LUXEMBOURG USER GROUP Luxembourg 🇱🇺
ELASTIC MANCHESTER USER GROUP United Kingdom 🇬🇧	ELASTIC MOSCOW Russian Federation 🇷🇺	ELASTIC NIGERIA Nigeria 🇳🇮	ELASTIC OSLO USER GROUP Norway 🇳🇴
ELASTIC PORTUGAL Portugal 🇵🇹	ELASTIC RHEINRUHR Germany 🇩🇪	ELASTIC SLOVAK USER GROUP Slovakia 🇸🇰	ELASTIC USER GROUP - CZ Czech Republic 🇨🇪
ELASTIC USER GROUP - DUBLIN Ireland 🇮🇪	ELASTIC USER GROUP ABIDJAN Côte d'Ivoire 🇨🇮	ELASTIC WARSAW USER GROUP Poland 🇵🇱	ELASTIC ZAGREB Croatia 🇭🇷
ELASTICSEARCH - SOUTH AFRICA South Africa 🇿🇦	ELASTICSEARCH SWITZERLAND Switzerland 🇨🇭	ELASTICSEARCH USER GROUP PAKISTAN Pakistan 🇵🇰	SEARCH MEETUP MUNICH Germany 🇩🇪

Discuss Forum

<https://discuss.elastic.co>



Category	Topics	Latest
Announcements Release announcements, end of life notifications and other bits about Elastic products that we think will be useful to everyone. Community Ecosystem	385 5 unread	Notes on Using These Forums 2 Meta Elastic Apr 17
Beats Any questions regarding Beats, forwarders and shippers for various types of data.	61 / week 1 unread 15 new	Couldn't push logs to elasticsearch using filebeat 1 Filebeat 3m
Elasticsearch Any questions related to Elasticsearch, including specific features, language clients and plugins. Rally 1 unread	178 / week 831 unread 36 new	<BarSeries> configuration 0 Kibana 6m
Logstash Everything related to your favorite centralized logging platform, including plugins and recipes.	95 / week 29 unread 24 new	Dec 15th, 2019: [EN] Elasticsearch Snapshot Lifecycle Management (SLM) with Minio.io S3 0 advent-staging 7m
Kibana All things about visualizing data in Elasticsearch & Logstash, including how to use Kibana and extending the platform.	113 / week 42 unread 19 new	Invalid IP network, skipping 0 Logstash 10m
APM Everything related to APM - whether it is the APM Server, the Kibana dashboards, or the agents.	12 / week 5 new	FScrawler stuck at 2.6gb index size 2 Elasticsearch 11m
Logs Everything related to the Logs app - setup with Filebeat, Filebeat modules, and using the Kibana Logs app.	55	Elastic APM Java agent - sanitize_fields_names on application/json* data 1 APM java 21m
Metrics Everything related to metrics - Metricbeat, integrations and modules, Kibana dashboards and the Metrics app.	1 / week	Metricbeat Failed to connect EOF 5 Metricbeat 22m
		Mix free and paid licenses 0 Elasticsearch license 23m
		Filebeat CPU utilization metrics are not normalized by default 2 Beats stack-monitoring 23m
		How do i aggregate these documets 6 Logstash 26m
		Metricbeat error 1 Metricbeat 28m

Thanks for listening

Q & A

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