



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

A search bar with a magnifying glass icon on the left and a microphone icon on the right. A vertical line indicates the current cursor position within the text field.

Google Search

I'm Feeling Lucky

Google offered in: [Deutsch](#)

Advanced Search

Find pages with...

all these words:

foo



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:

any language

region:

any region

last update:

anytime

site or domain:

terms appearing:

anywhere in the page

SafeSearch:

Show explicit results

file type:

any format

usage rights:

all

Find pages in the language that you select.

Find pages published in a particular region.

Find pages updated within the time that you specify.

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

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

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

Find pages in the format that you prefer.

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 with a search bar containing 'tv 50\"

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 | Prime Video | **fashion** | Deutsche Marken unterstützen

Produkte mit Nachhaltigkeitszertifizierungen entdecken

CLIMATE PLEDGE FRIENDLY

Frühe Black Friday Angebote

- Alle Angebote
- Blitzangebote
- Amazon-Geräte
- Angebote unter 20€

Jetzt entdecken

Top Fashion-Angebote für Damen

- Jacken
- Stiefel
- Sneaker
- Jean

Mehr entdecken

Die Ärzte: Neues Album

Jetzt streamen

Angebot des Tages

Erdmann Fettfutter

Bruce Springsteen: Neues Album

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 is a search bar with 'tv 50\"/>

Berechtig 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



The screenshot shows the Amazon.de product page for a Grundig Vision 7 - Fire TV Edition television. The page is in German and features a dark header with the Amazon logo, search bar, and navigation links. The main content area displays the product image, title, price, and various options. The price is 355,89 €, and the product is available in stock. The page also includes a 'Produktdatenblatt' section with additional details and a 'Sichere Transaktion' badge.

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 €

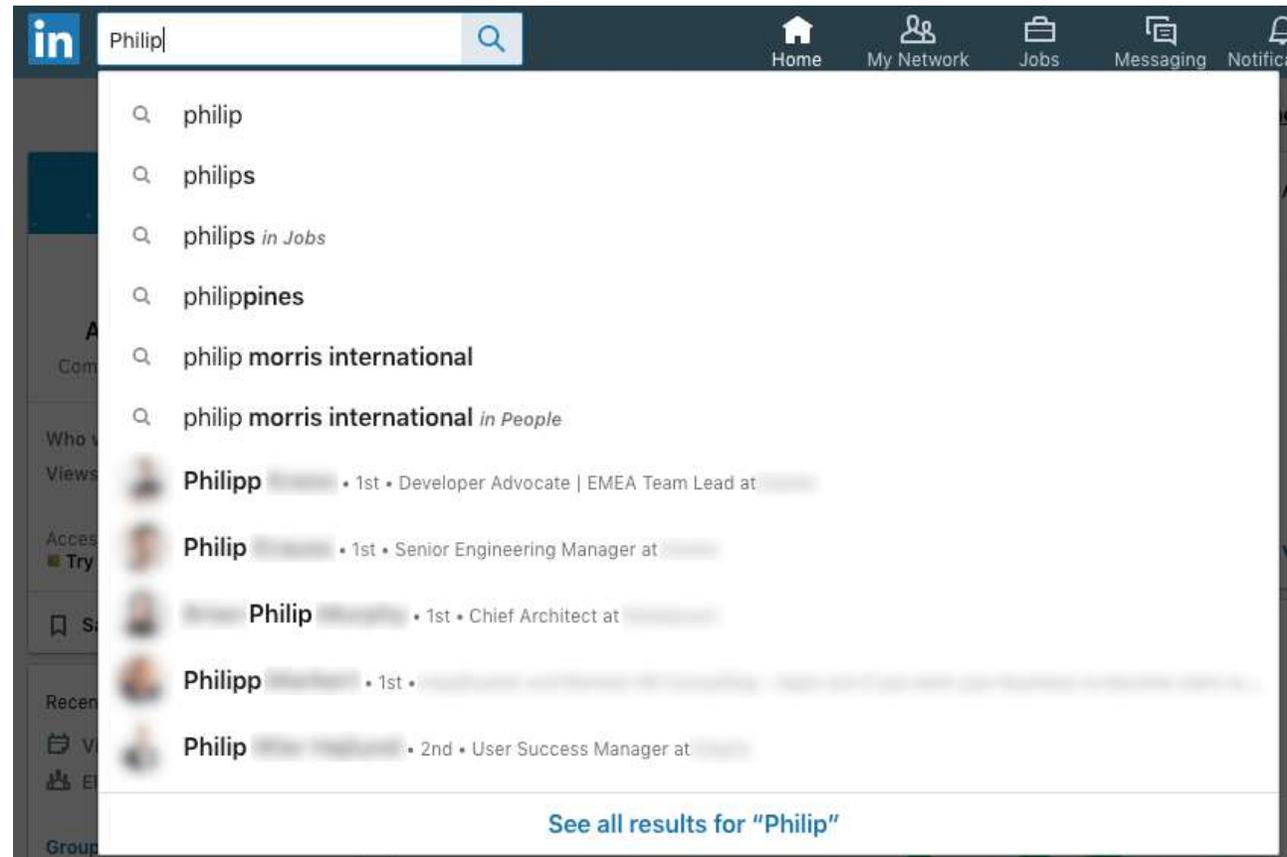
Geschenkoptionen hinzufügen

The ultimate search experience: Commercial Intent

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

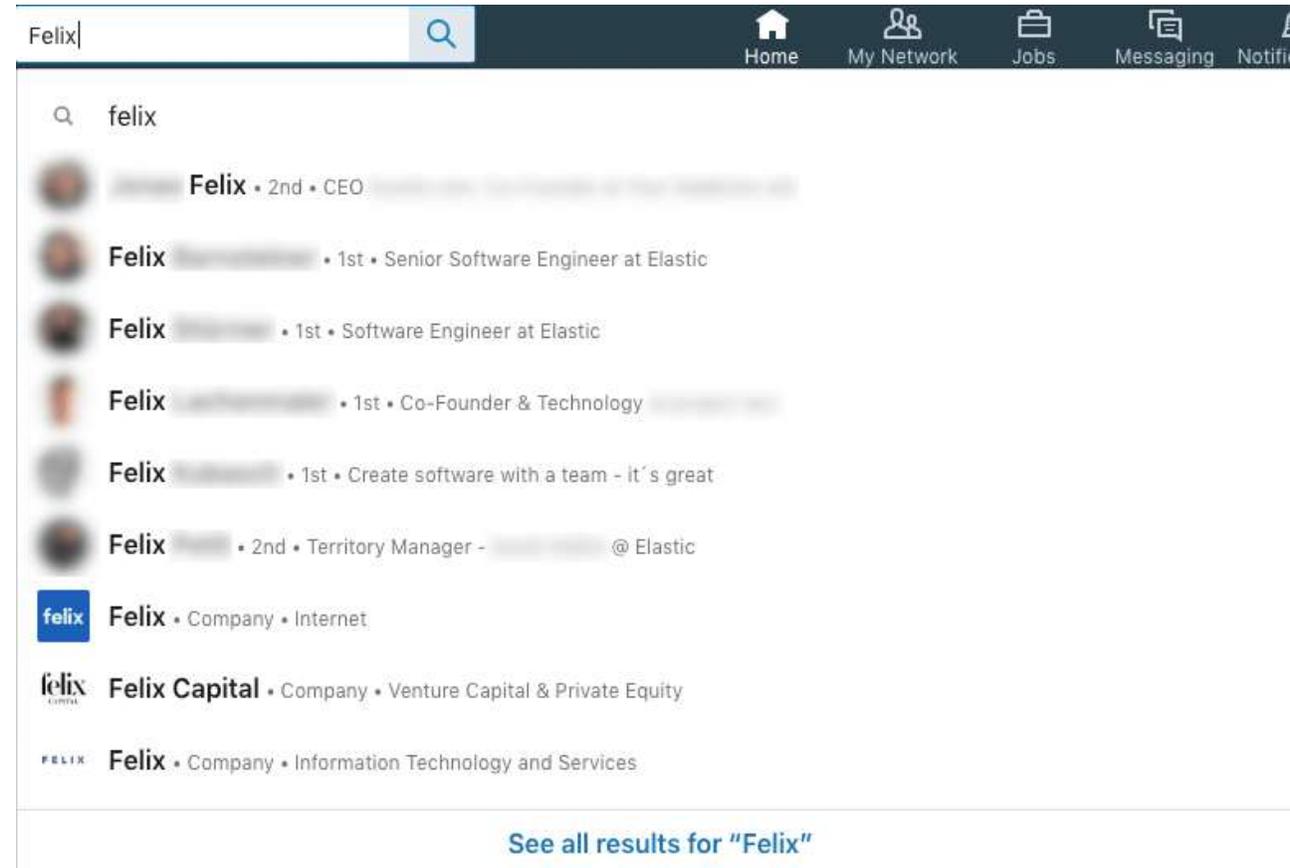
LinkedIn Search

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



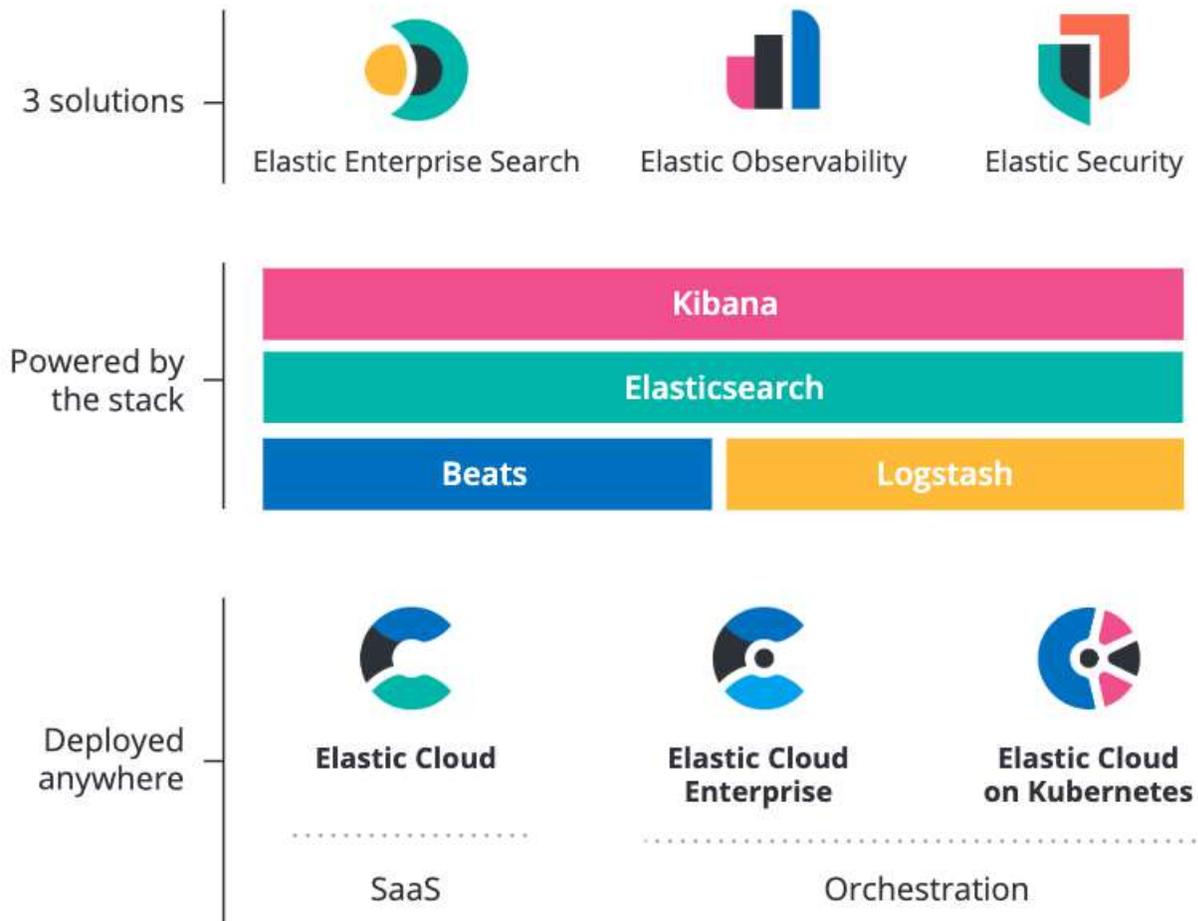
LinkedIn Search

- 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



Philippe 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 ?

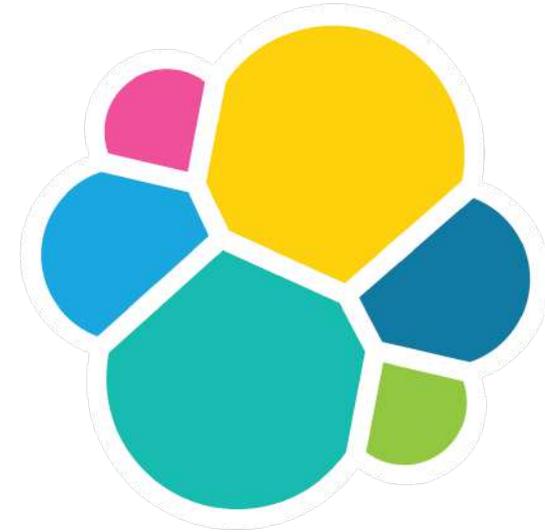
Thanks for listening

Q & A

Alexander Reelsen

Community Advocate

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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>



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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 🇩🇪

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 Apr 2017 Meta Elastic
Beats Any questions regarding Beats, forwarders and shippers for various types of data. Filebeat 1 unread 7 new Packetbeat 1 new Metricbeat 3 new Winlogbeat 2 new Heartbeat 1 new Auditbeat Functionbeat Journalbeat Beats Developers Community Beats 1 new Topbeat Central Management	61 / week 1 unread 15 new	Couldn't push logs to elasticsearch using filebeat 1 3m Filebeat
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 6m Kibana
Logstash Everything related to your favorite centralized logging platform, including plugins and recipes.	95 / week 29 unread 24 new	FScrawler stuck at 2.6gb index size 2 11m Elasticsearch
Kibana All things about visualizing data in Elasticsearch & Logstash, including how to use Kibana and extending the platform.	113 / week 42 unread 19 new	Elastic APM Java agent - sanitize_fields_names on application/json* data 1 21m APM Java
APM Everything related to APM - whether it is the APM Server, the Kibana dashboards, or the agents.	12 / week 5 new	Metricbeat Failed to connect EOF 5 22m Metricbeat
Logs Everything related to the Logs app - setup with Filebeat, Filebeat modules, and using the Kibana Logs app.	55	Mix free and paid licenses 0 23m Elasticsearch license
Metrics Everything related to metrics - Metricbeat, integrations and modules, Kibana dashboards and the Metrics app.	1 / week	Filebeat CPU utilization metrics are not normalized by default 2 23m Beats stack-monitoring
		How do i aggregate these documets 6 26m Logstash
		Metricbeat error 1 28m Metricbeat

Discuss Forum

<https://discuss.elastic.co>

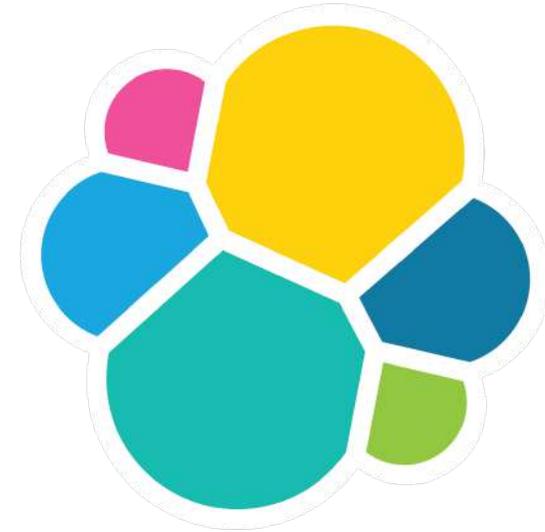
Thanks for listening

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