



# BigData alla velocità della luce. Search, Analytics & Discovery

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#redhatosd



#### Chi è Seacom





Distributore italiano

Authorized Zimbra Training Center

Aggregator (mercato ISP)

Fondatore di...



Gli altri prodotti a listino



from the creators of Kafka



Workflow Simplified









# Seacom Premium partner Elastic













#### **Elastic Overview**



Statistics since 2012, start of the company







70,000+ Community Members

70M+
Product
Downloads

2,400+
Subscription
Customers

Il nostro obiettivo è di aiutare a rendere i dati fruibili in tempo reale per risolvere i problemi reali di oggi







# Millions of Download

# 70 Million Lifetime Product Downloads



**70. 30.** 10. Cumulative all Elastic products to date 2012 2013 2014 2016 2015







# Solving Problems Beyond 'Search'















"Migliora la cura dei pazienti aiutando a prendere le decisioni in tempo reale." "Aiuta a combattere il traffico di esseri umani."

"Analisi di 3-4 miliardi di eventi al giorno per la security intelligence." "Trovare la camera giusta non è mai semplice (senza Elastic)." "Molti ambiti di utilizzo:
ottimizzazione del
trading, analisi dei log,
reclutamento del
personale."









## A Solution for Every Use Case and Everyone



IT Operations
Application Management
Security Analytics

Marketing Insights
Business Development
Customer Sentiment

Website/App Search
Internal/Intranet Search
URL Search

Security Analytics

Log Analytics

Metrics Analytics Operational Analytics

Embedded Search

Application Search

Internal Systems/Applications

External Systems/Applications

Developers

Architects

IT/Ops

**Business Analysts** 

CTO/CIO/CDO

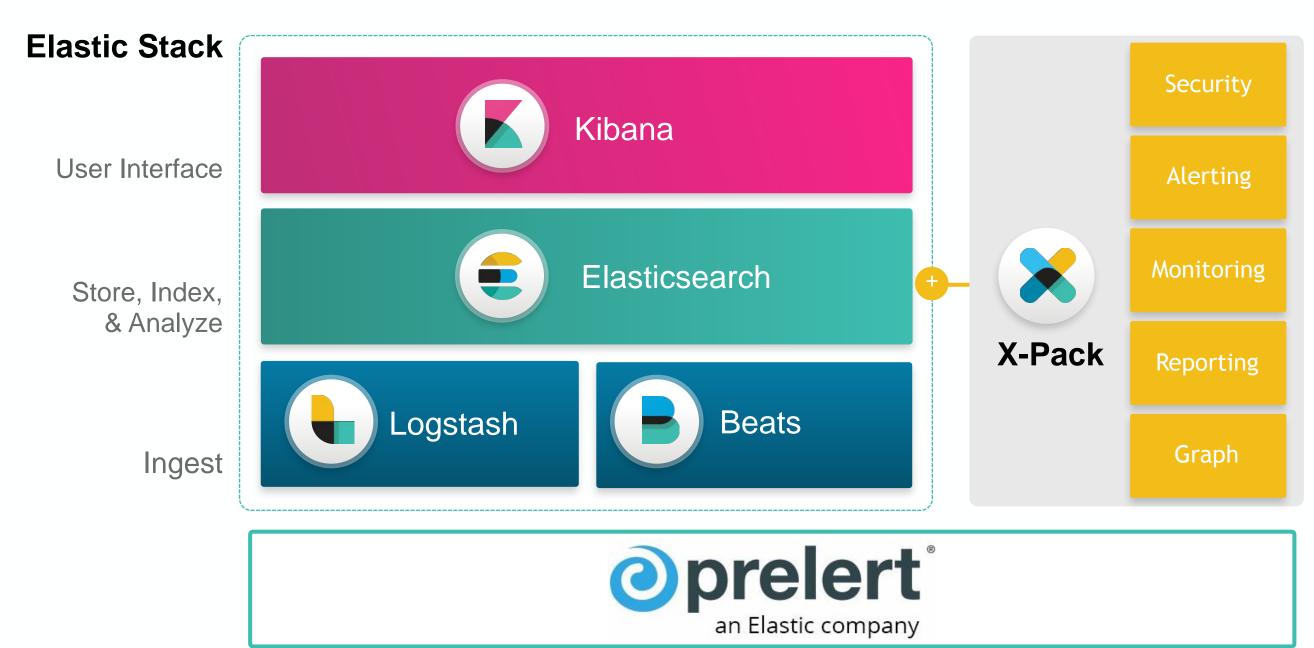






# Introducing the Elastic Stack, X-Pack, and Prelert











# Store, Index, and Analyze





# Distributed & Scalable

- Designed for scale-out
- High availability; multitenancy
- Structured & unstructured data

# **Developer Friendly**

- Schemaless
- Native JSON
- Client libraries
- Apache Lucene

# Search & Analytics

- Real-time
- Full-text search
- Aggregations
- Geospatial
- Multilingual





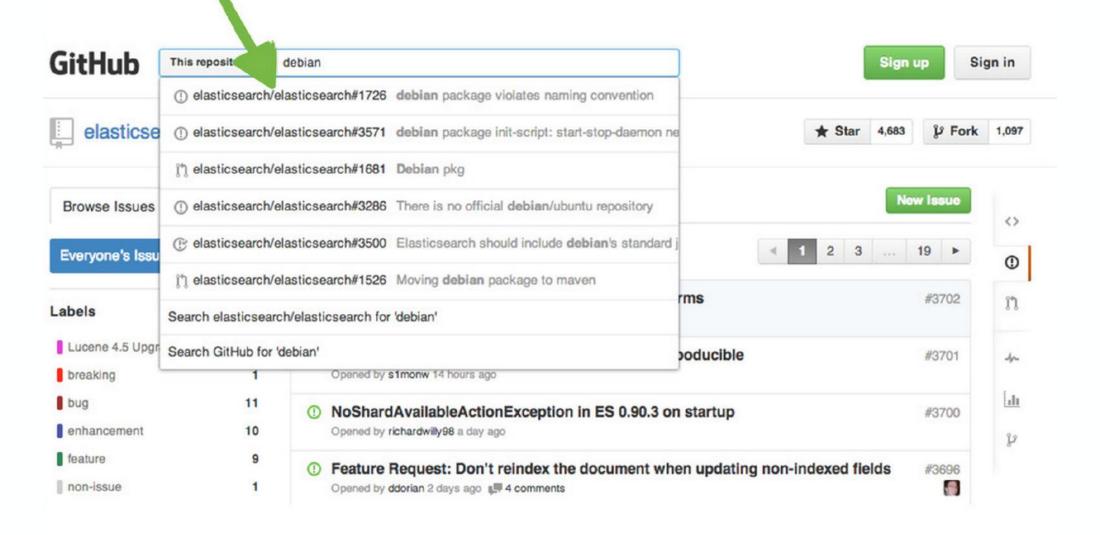




# Google Like Experience



# Suggestions









## Visualize and Explore



# Discover Insights

- Explore and analyze patterns in data; drill down to any level
- Leverage powerful analytical capabilities in Elasticsearch

# **Customize** & Share

- Create bar charts, line and scatter plots, maps and histograms
- Share and embed dashboards into operational workflows

# Window into Elastic Stack

- Unified user interface for data visualization
- Administration and management for the Elastic Stack
- Pluggable architecture to create custom visualizations and applications

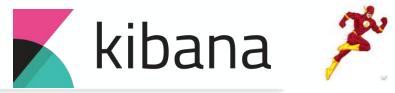


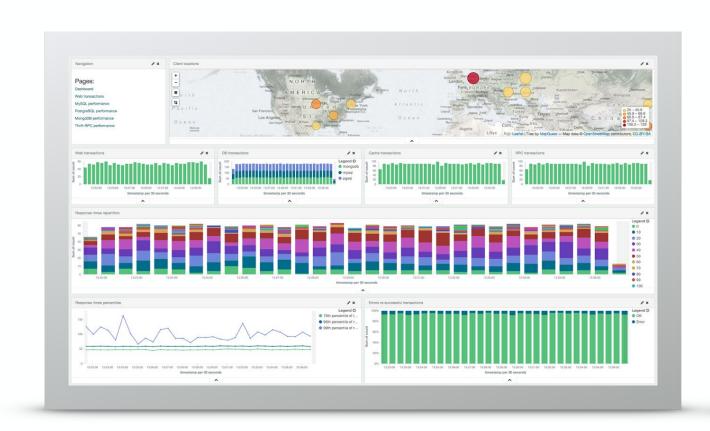


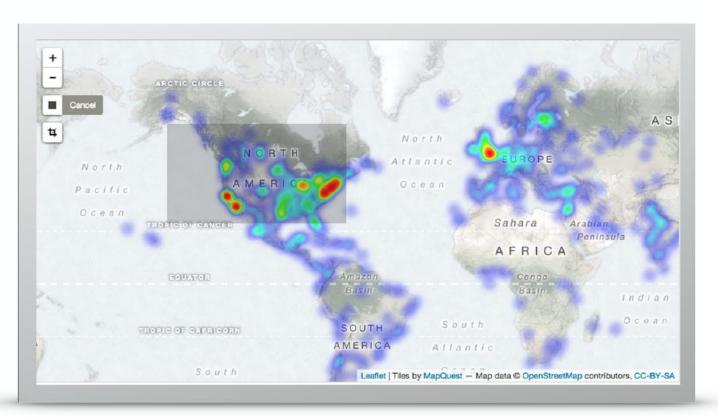




# Visualize and Explore















# Ingest





- Data collection and enrichment; 200+ plugins
- Next generation data pipeline; microbatches, process groups of events



- Platform to build lightweight, data shippers
- Forward host-based metrics and any data to Elasticsearch

# **ES-Hadoop**

- Two-way connector to integrate with HDFS, Spark, MapReduce, etc.
- Enable real-time search queries on Hadoop data



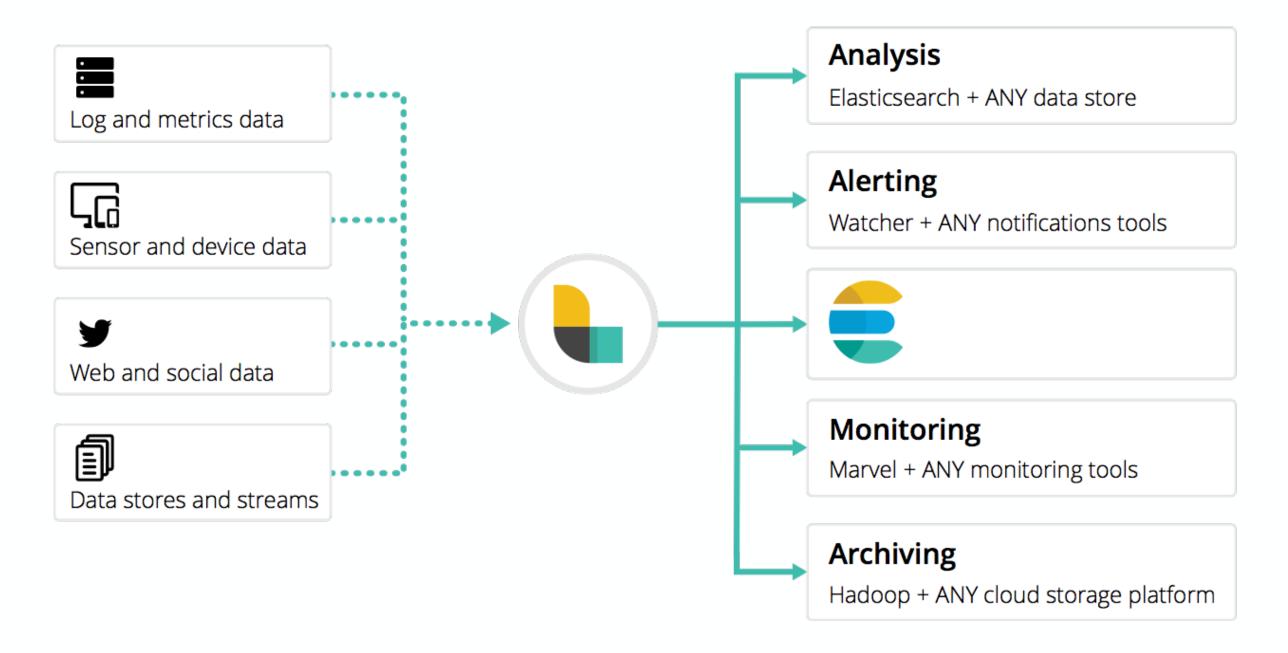






## Collect, enrich and transport











# Lightweight Data Shippers



#### Libbeat

Library for forwarding host-based metrics to Elasticsearch

#### **Filebeat**

Next-generation Logstash forwarder to collect, pre-process, and forward log files.

#### **Packetbeat**

Real-time network packet analytics for web, database, and any network protocols

#### Winlogbeat

System, application, and security information from Window event logs

#### **Topbeat**

Gather resource utilization data such as CPU, memory, and other pre-process/system data

#### {Future}beats

Growing list of beats from the community including http, Redis, Nginx, Docker, Twitter, etc









#### **Packetbeat**



Real-time network packet analytics for web, database, and any network protocols





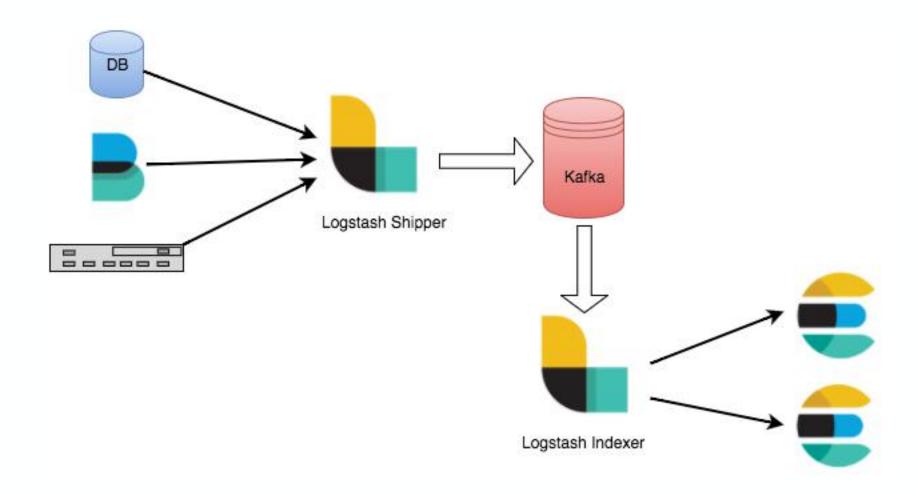






#### Elastic & Kafka











# BigData Architecture



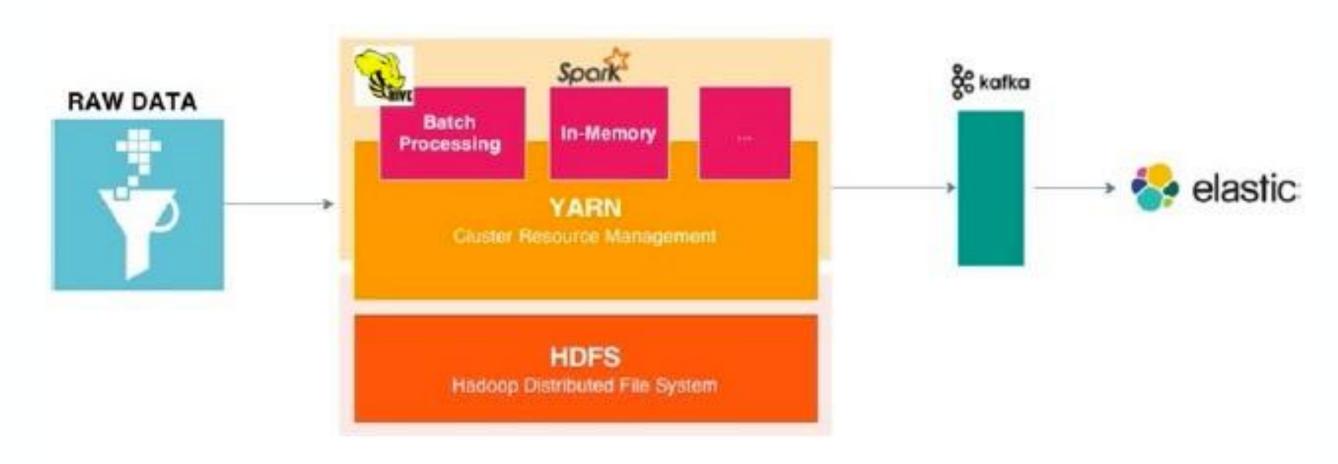


Figure 4 Processing engine



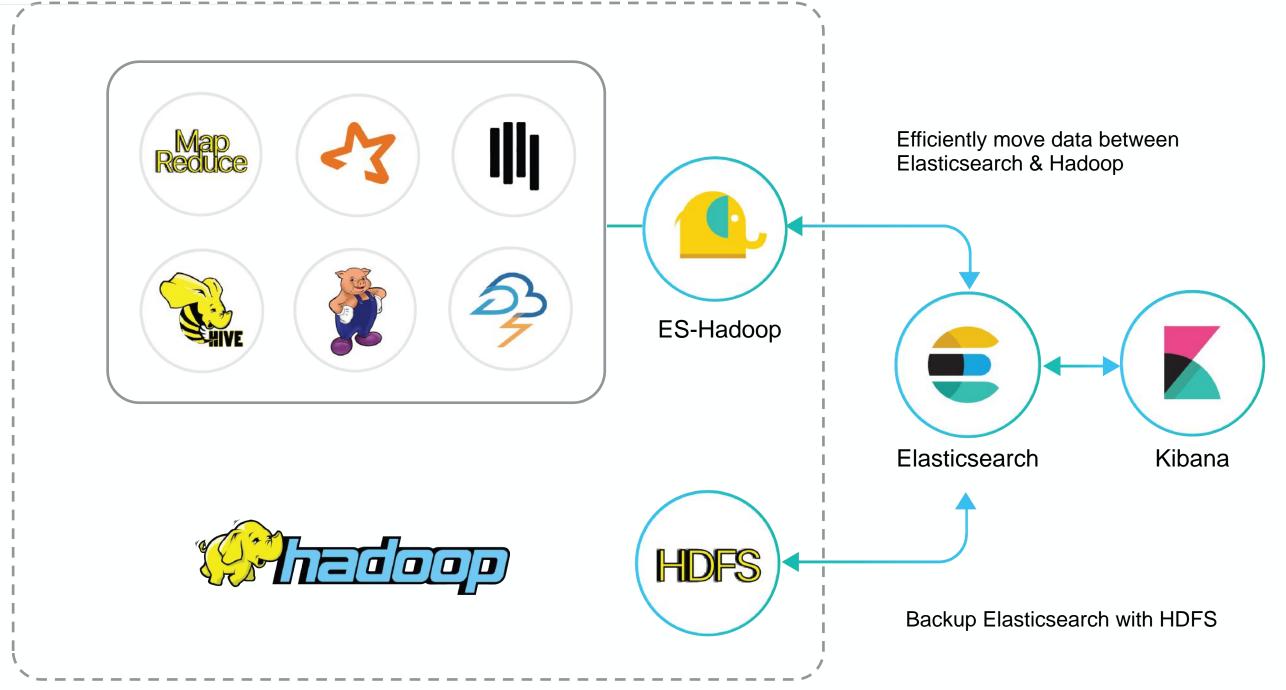






# Elasticsearch for Hadoop











## A Single Extension





#### **Security**

Security for the Elastic Stack (Shield)

#### **Alerting**

Notifications for the Elastic Stack (Watcher)

#### **Monitoring**

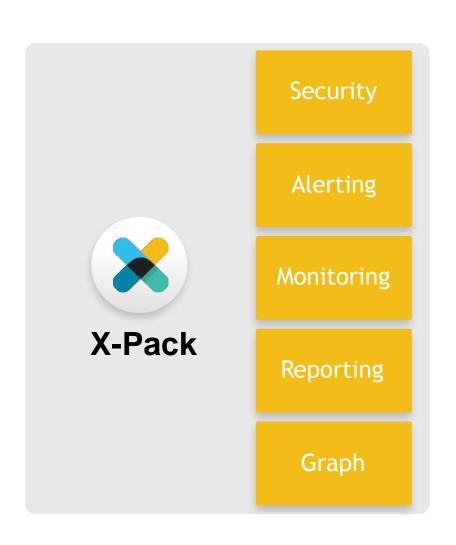
Monitoring for the Elastic Stack (Marvel)

#### Reporting

Automated reporting for the Elastic Stack

#### Graph

Real-time graph analytics for the Elastic Stack











#### Adds value across all use cases



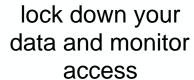
**SECURITY ANALYTICS** 

LOG ANALYTICS **METRICS ANALYTICS** 

BUSINESS ANALYTICS ENTERPRISE SEARCH

APPLICATION SEARCH



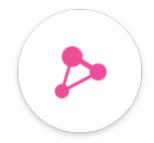




get notified when something changes in your data



monitor the health of your Elasticsearch cluster(s)



explore meaningful relationships in your data



generate PDF reports to share your insights









# Security (Shield)

#### **Simply Secure the Elastic Stack**

Username/password protection

#### **Advanced Security When Needed**

LDAP/AD integration

Role-based access control

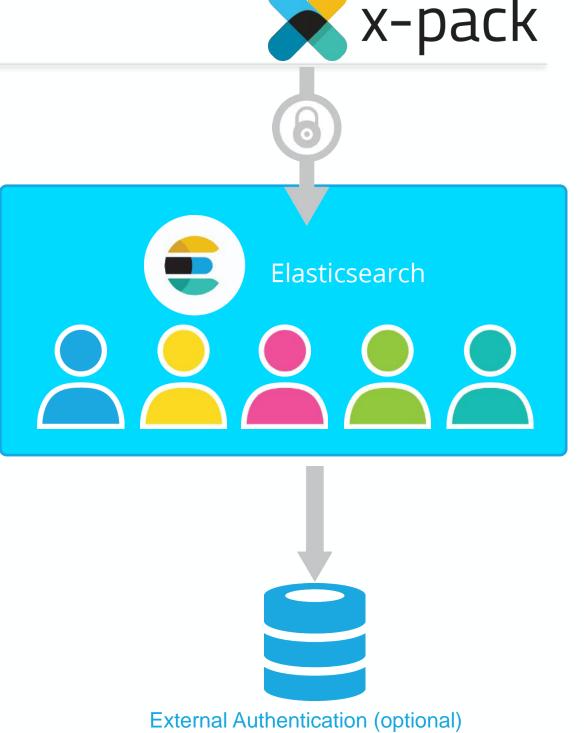
IP filtering

Field and document level security

Encrypted communications

Audit logging

Kibana plugin for login and session management













## Alerting (Watcher)





#### **Setup Alerts**

Create Watches based on data

Trigger automatic notifications

Setup chained inputs

#### **Notify and Integrate**

Slack, Hipchat, JIRA, Pagerduty

**Email** 

Elastic Monitoring (Marvel)

Other











## Monitoring (Marvel)



#### **Monitor Elasticsearch**

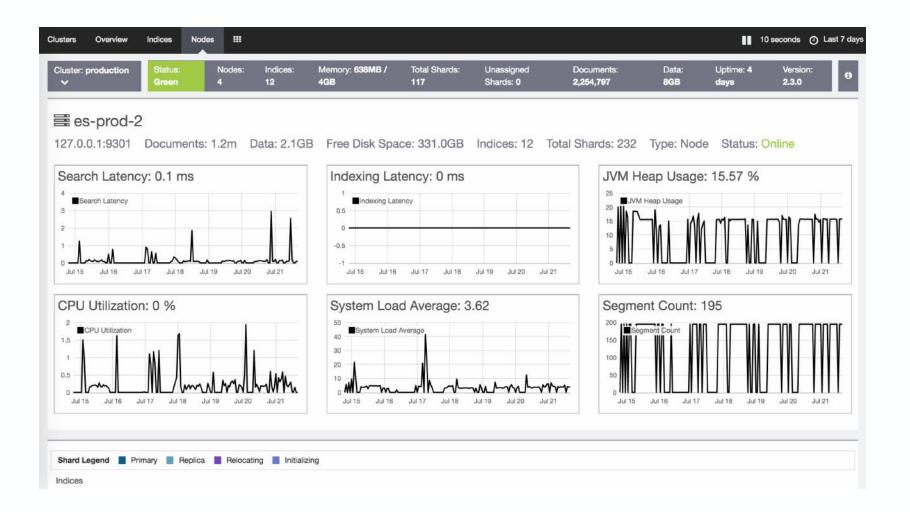
Real-time statistics and metrics for all clusters and nodes

#### **Diagnose Issues**

Analyze historical or real-time data for root cause analyses

#### **Optimize Performance**

Utilize in-depth analyses to improve cluster performance











## **Graph Analytics**

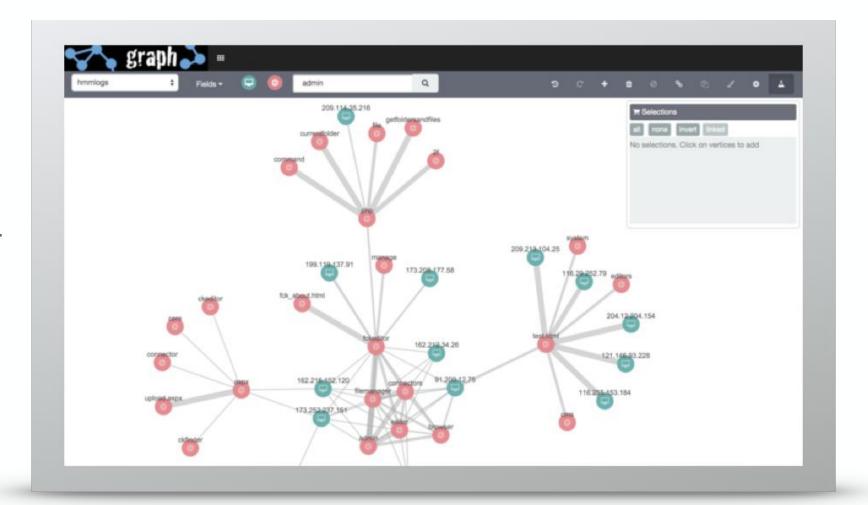


#### **Query and Visualize Relationships**

Use relevance as a guide to uncover and explore new relationships in all your data stored in Elasticsearch

Interact with Graph via a Kibana plugin or use the Graph API to integrate with your applications

Enable new use cases – behavioral analysis, fraud, cybersecurity, drug discovery, and recommendations











## Reporting

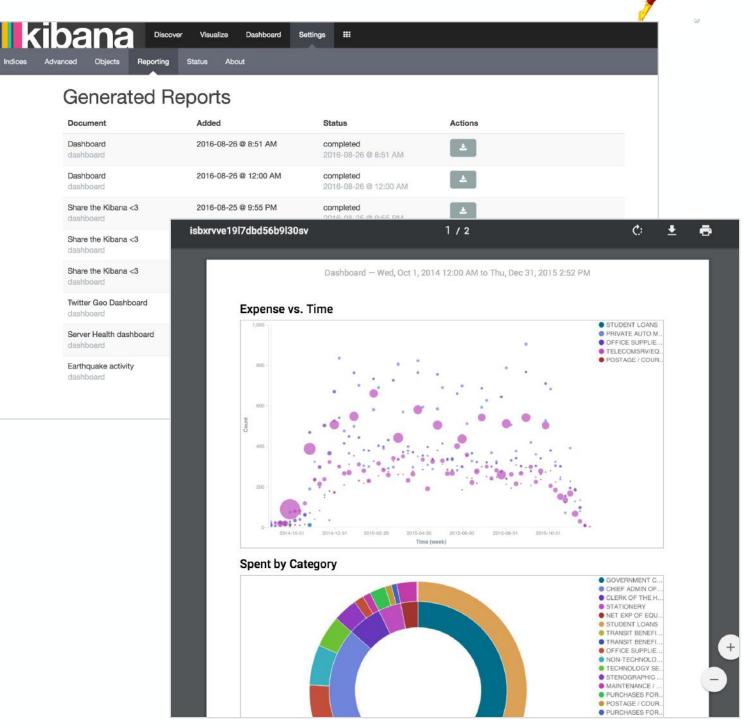
#### **Generate and share reports**

Export PDFs of reports of dashboards and visualizations with a single click

Use Alerting features to:

email reports on a time-based interval

schedule event-based reports (example: when X event occurs, send Y report)









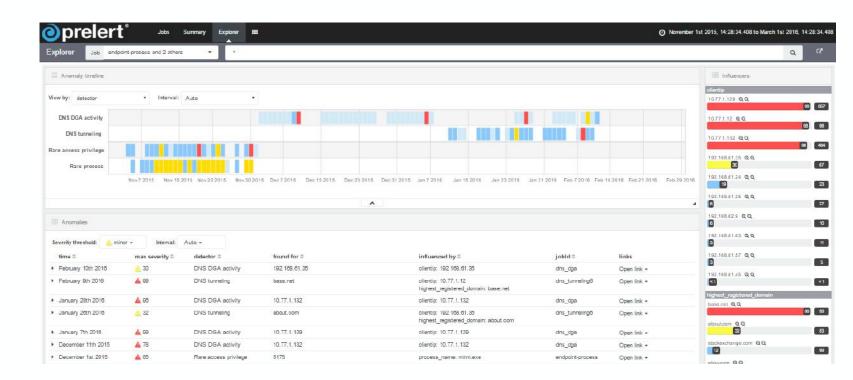


# **Behavioral Analytics**



#### **Unsupervised machine learning**

- Automatically detect anomalies
- Advanced correlation and categorization
- Identify root cause(s) and expose early warning signs



#### **Analyze time series data**

- Use cases span security, IT ops, fraud, finance and many more
- Currently in beta; building native integration with the Elastic Stack



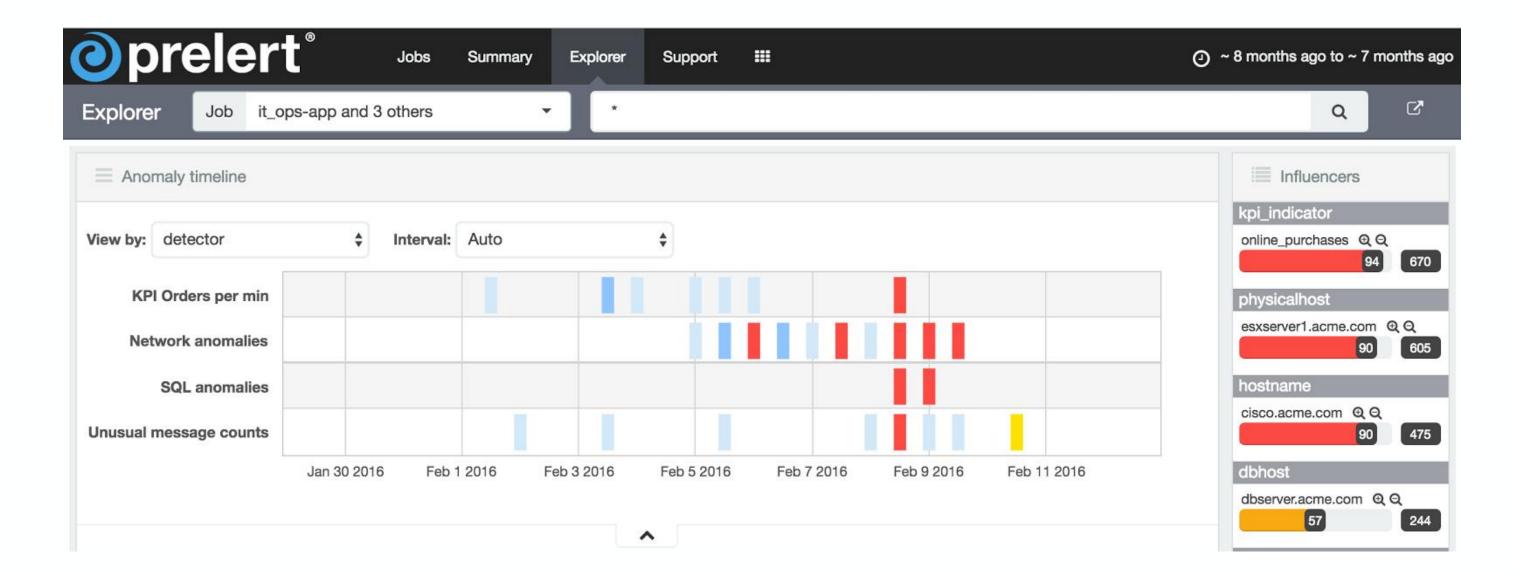






# **Anomaly Detection**

















# Grazie

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