

# ELASTICSEARCH

## THE UNIVERSAL TALENT DISTRIBUTED SEARCH AND ANALYTICS ENGINE



The distributed multi-tenant, full-text search engine Elasticsearch is an open-source technology. It is based on the software library Apache Lucene, ensuring a solid foundation. Its document-oriented approach makes it able to efficiently search information, where schemaless data, in the form of arbitrarily complex JSON documents, can be handed to Elasticsearch for indexing. It provides results over a RESTful interface. The distributed architecture of Elasticsearch subdivides an index into several shards, which then can be replicated onto several servers (nodes) within a cluster. Because of this, Elasticsearch can cope with high query loads, evenly distributing the processing load and compensating for any server outages. This architecture supports changes that find their way into the search results in a timely manner, even under a heavy load. Elasticsearch can be used for a variety of tasks. Complex queries like SQL syntax, geo features, full-text search or lexical or localized search functions belong to the standard range of Elasticsearch.

### ADVANTAGES OF ELASTICSEARCH

- Impressive search results and accelerated search speed
- Very easy to use and operate. Straightforward integration into the IT ecosystem
- Can be quickly used from several programming environments due to the availability of a REST API
- Elasticsearch geo features allows searching of distances and geofences
- Elasticsearch in combination with the web application Kibana enables:
  - visualization of data in various dashboards and reports
  - configuration of alerts
  - machine learning
- Advanced analytic options using Kibana and Logstash

**Large players like Amazon offer a dedicated Elasticsearch service — both Github and StackOverflow use this search and analytics engine with great success.**

### AERIS EXPERTISE – APPLICATIONS & ARCHITECTURES

- Monitoring of logs and metrics
- Databases for geographic search or time series analysis
- Fraud detection
- Solutions for online shops, 360° CRM and content management systems
- Website performance tracking
- Analyzing machine and vehicle status as well as problem prevention

### WHY ELASTICSEARCH IS SO VALUABLE TO AERIS' CLIENTS

- Quick deployment and precise configuration of Elasticsearch cluster for cloud or on-premise solutions — search feature, log analysis or big data and other modern business applications
- Implementation of monitoring strategies using Elasticsearch, Logstash, and Kibana
- Development of applications with complex search features and near real-time analysis
- Knowledge transfer to the development and operation teams of our clients