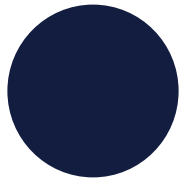


Infrastructure Training

Lesson 3 Recap

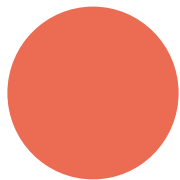
Elasticsearch and Kibana

About Elasticsearch



About Elasticsearch

- A big data storing tool; a NoSQL database
- In general – store and index documents
- In UiPath Orchestrator – store messages logged by the robots



Uses of Elasticsearch

- Search for a word or a phrase in the message,
- Apply search criteria to any field that is indexed – log level, username, robot name, process name
- Create charts and put them in dashboards (using Kibana)

Place of Elasticsearch



Elasticsearch is an integral part of our solution.



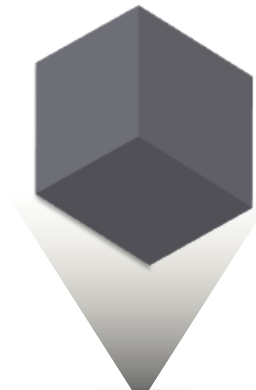
Elasticsearch is a free product



It is optional, but highly recommended



Several times quicker in searches, compared to SQL database



Along with Kibana, it offers the means to run BI and MI reports, analytics

NLog, Elasticsearch, other logging solutions



NLog supports standard targets and custom targets

Other targets for NLog: MongoDB, Splunk, Kafka, etc



Orchestrator uses the NLog library to collect messages from the robots and redirect them to one or more targets

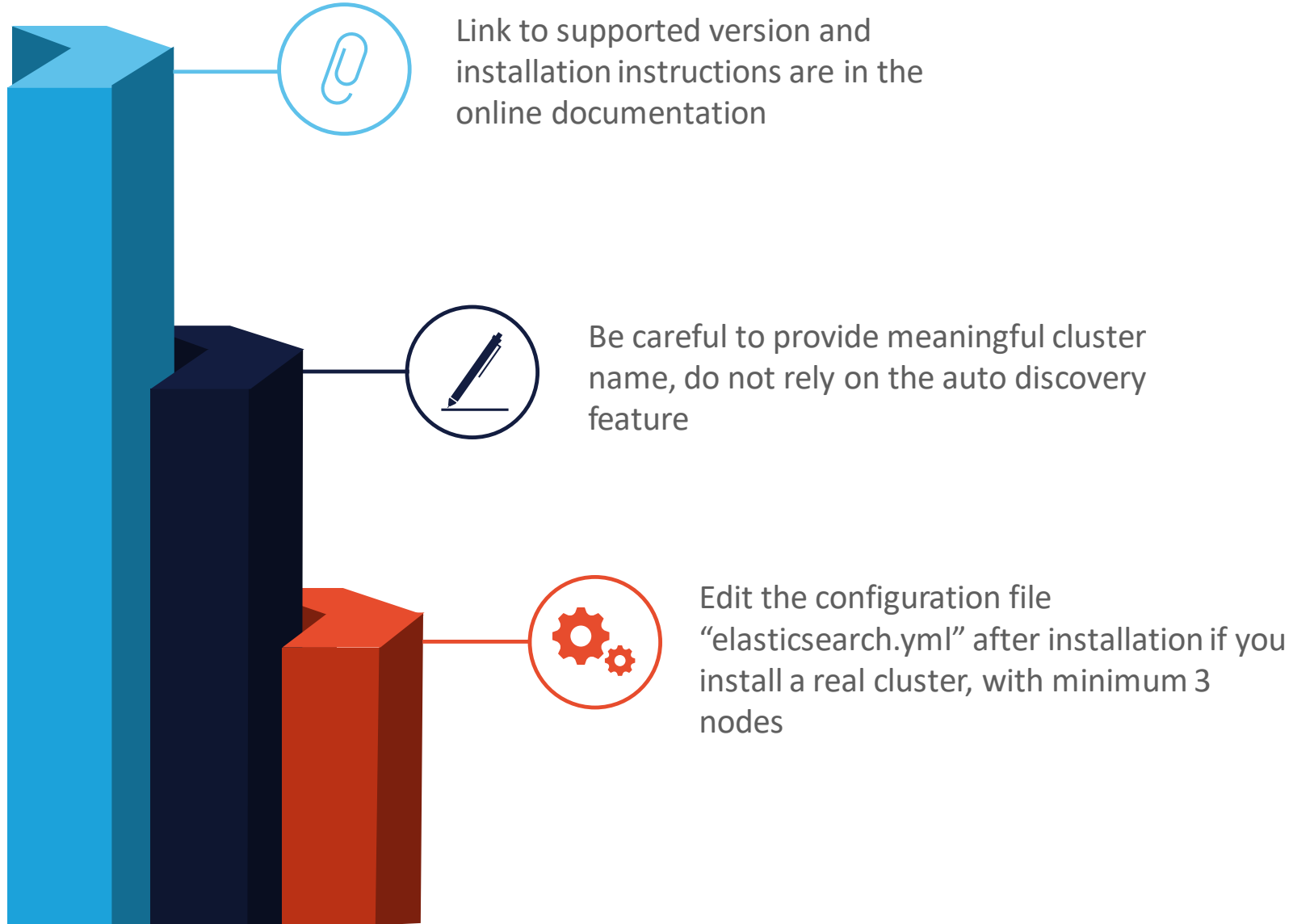


Elasticsearch is a custom target, using an extension (a bridge)



Worst case: write messages into a flat file (text) and use a log collector to transfer them

Installation of Elasticsearch



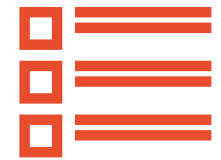
Kibana



A visualization plugin over
Elasticsearch



Link to supported version and
installation instructions are in
the online documentation



Necessary files and instructions to
create a Windows service for
Kibana are also in the online
documentation

Index pattern in Kibana



Create an index pattern after installation



Create an index pattern after a new tenant is added in Orchestrator



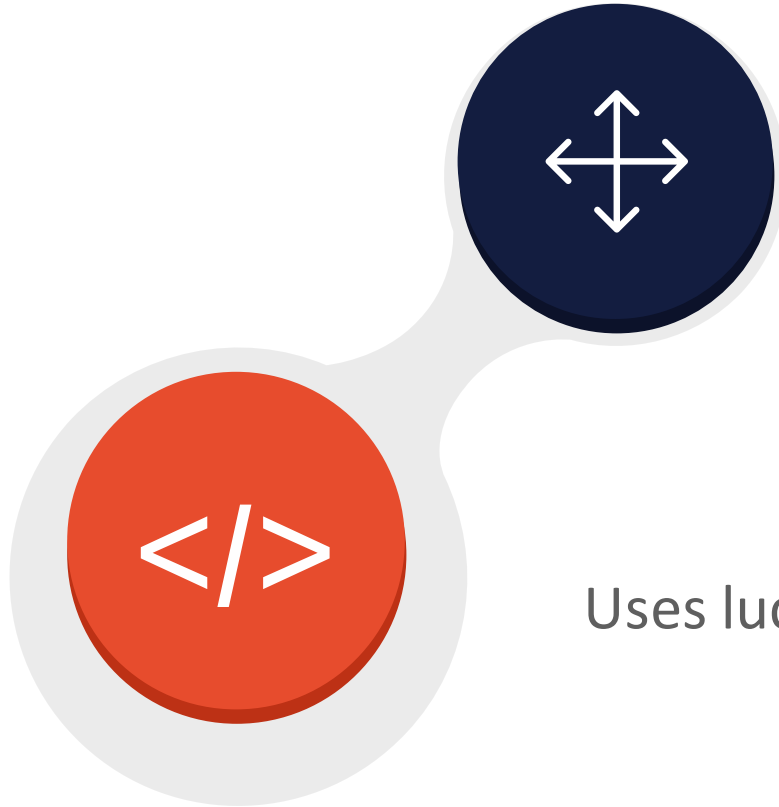
Run AddMessageToElasticsearch PowerShell script to force the creation of the first index



Examples of index names (composed of tenant name, year and month)

- default-2017.10, default-2017.11, default-2017.12, default-2018.01
- rpacoe-2018.01, rpacoe-2018.02, rpacoe-2018.03

Kibana searches



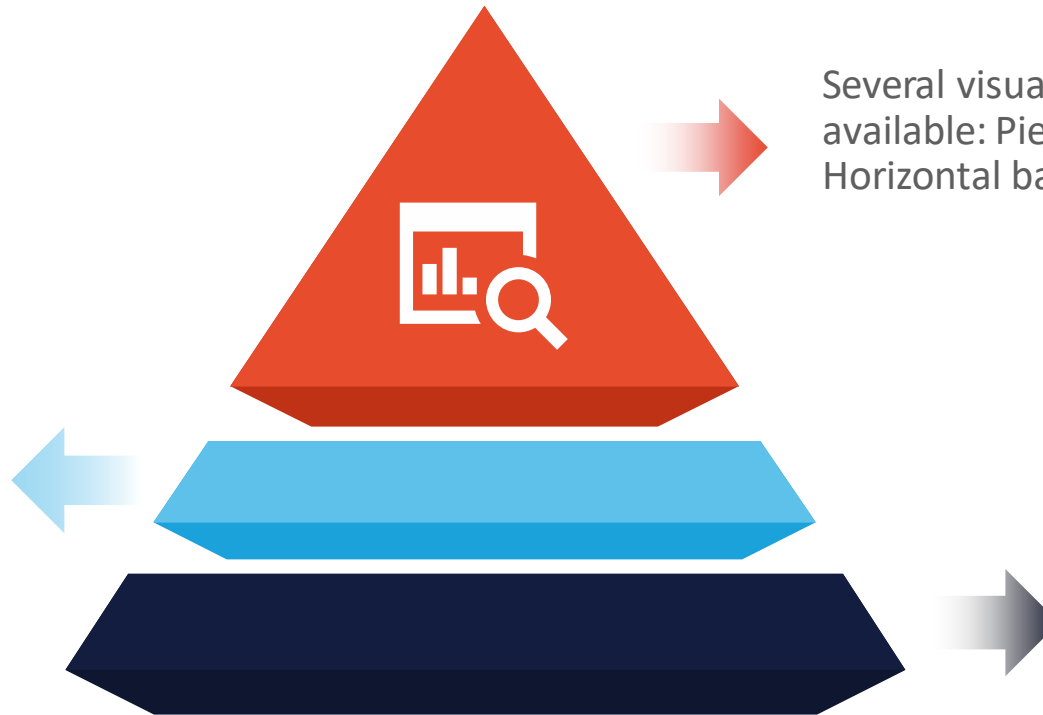
In Kibana web interface, click on Discover

Uses lucene query syntax

Visualizations



Create new visualizations, export and share the existing ones



Several visualization types are available: Pie, Line, Vertical bar, Horizontal bar, Area, Table, etc

Visualizations are analytical ways of presenting data stored in Elasticsearch

Dashboard



A dashboard is a collection of visualizations on the same page



Examine Default dashboards



Watch the Kibana tutorials to learn useful information from Elasticsearch

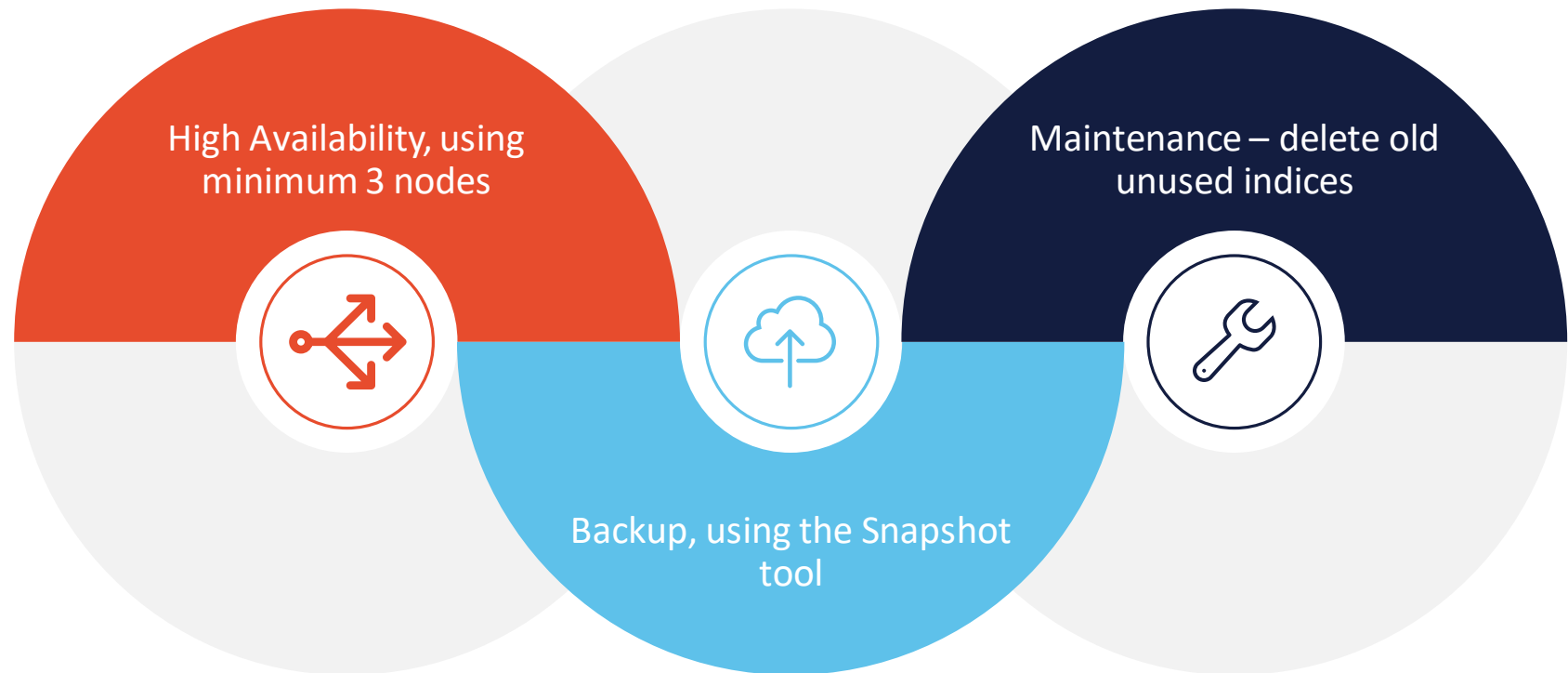


Export / import of visualizations and dashboards



Warning: custom fields

Elasticsearch – backup, snapshots



Thank you!
