



Big Workflow Execution & Monitoring



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Camunda BPM Enterprise Edition

- Initially offered in 2013
- Today 185 customers in 25 countries
- > 85% of customers use Camunda for core business processes
- Company revenue growth 2017: 89%



AT&T



TOTAL



UNIVERSAL MUSIC GROUP



WARNER MUSIC

Current Camunda BPM Customers (A Sampling)

Allianz 



Gainsight



Red Bull[®]



TOTAL



GENERALI

• • **T** Deutsche
Telekom



Panasonic



Camunda BPM Performance

»In general, we may conclude that Camunda performed better and more stable for all metrics when compared with WfMS A and WfMS B.«

Micro-Benchmarking BPMN 2.0 Workflow Management Systems with Workflow Patterns,
June 2016, University of Stuttgart, Germany and University of Lugano, Switzerland



... but traditional BPM doesn't work for everyone.

- Microservices orchestration?
- Complex, distributed systems?
- Very high volumes?
 - Where immediate consistency isn't required and
 - Massive scaling is a must.

NETFLIX

ebay™

NASDAQ

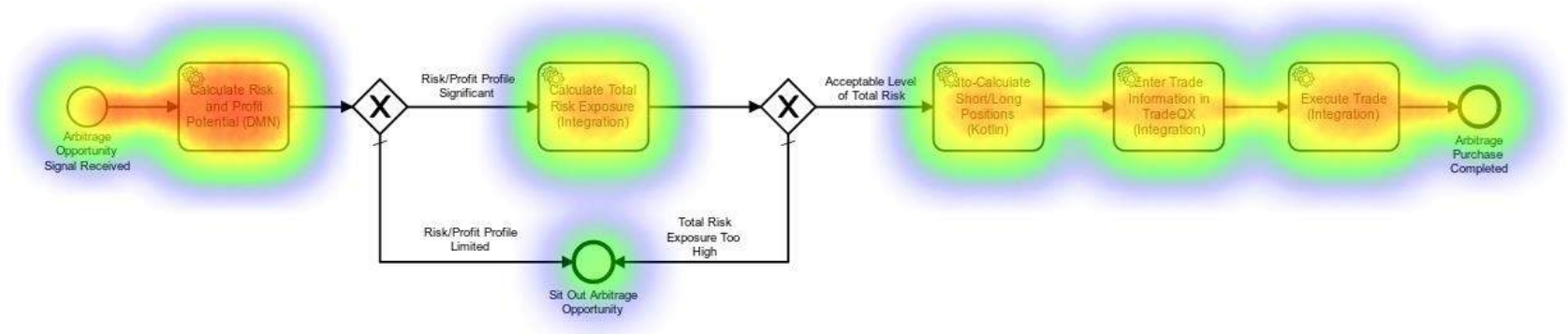


amazon



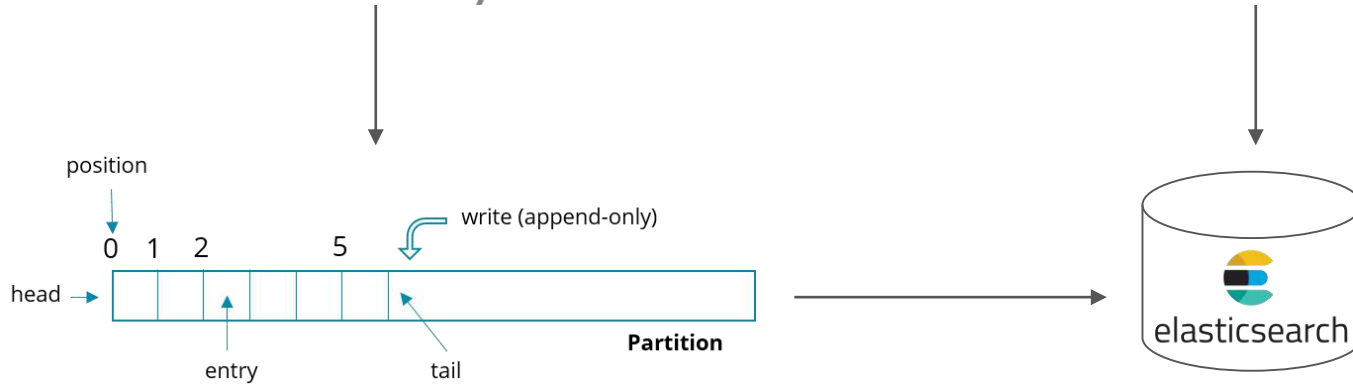
The Case for Workflow

- Distribute Work
- Handle Events
- Allow for Asynchronous Processing
- Provide Visibility



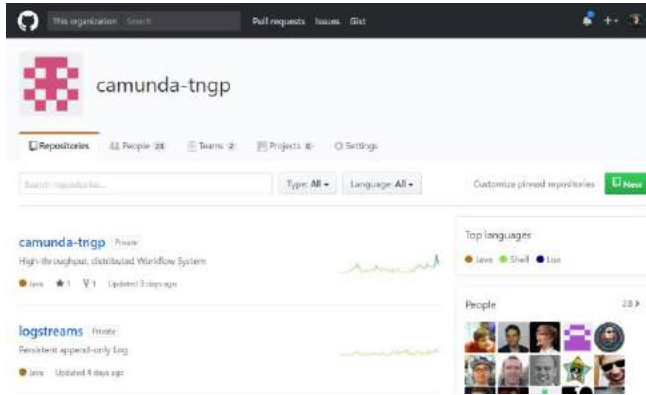


Enter Big Workflow





What Happened to TNGP?



is now:

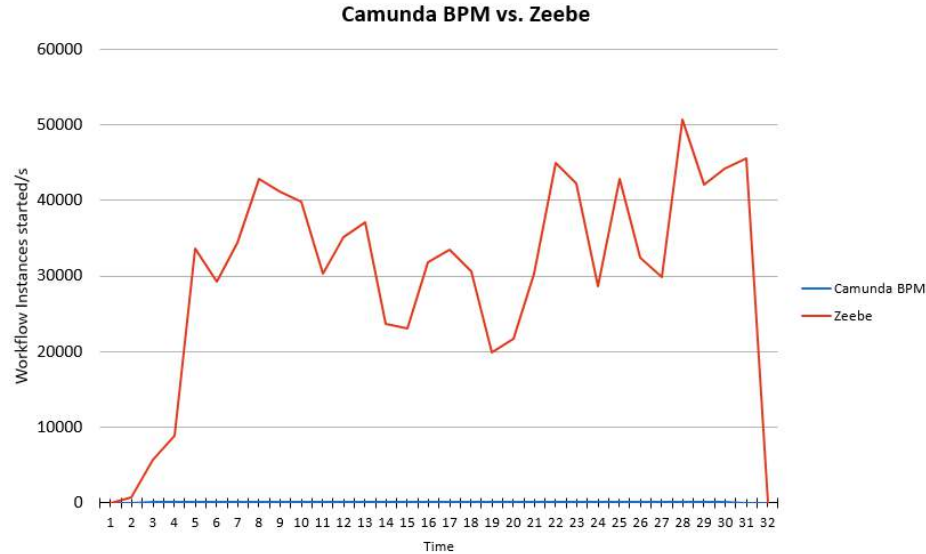




Performance: Zeebe vs. Camunda BPM



vs. Camunda BPM

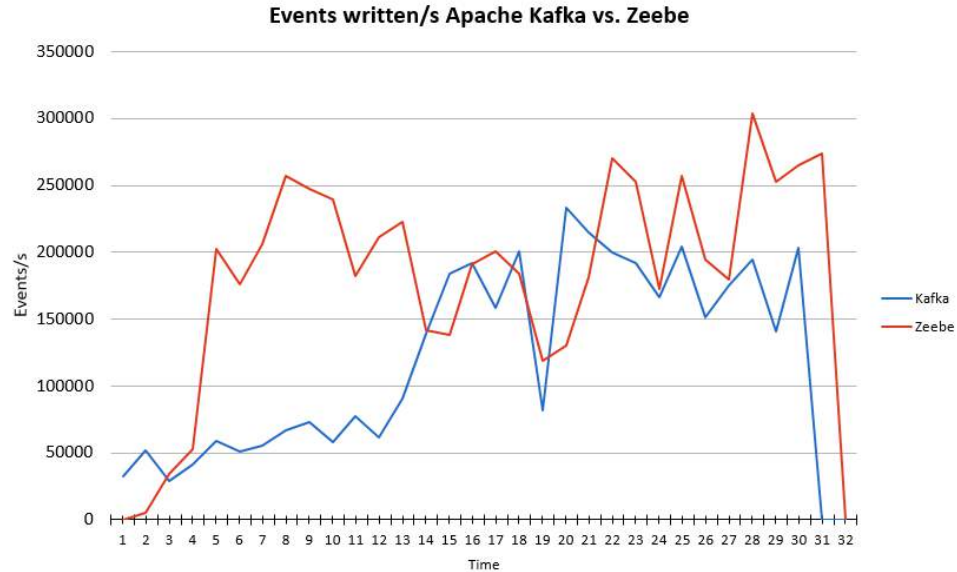




Performance: Zeebe vs. Kafka



Vs. Apache Kafka





Optimize: Business Activity Monitoring for Workflows

- Reports
- Alerts
- Analysis

Camunda Optimize Dashboards Reports Analysis Logout

Pairs Trade Dashboard

Last modified Mar 6, 2018 7:52 AM by admin Edit Delete Share

Pairs Trade Flow Nodes Distribution

end-event-sil-out execute-trade calculate-total-risk-exposure
enter-trade-information start-event end-event-completed
calculate-risk-and-profit calculate-positions

Pairs Trade Flow Nodes Heatmap

Pairs Trade Instances

processDefinitionKey	processDefinitionId	processInstanceId	startDate	endDate	engineName	Variable: companyOneName	Variable: companyOneQuote	Var
statistical-arbitrage-pt	statistical-arbitrage-pt:1	4295369264	2018-03-06T07:52:22.956-0700	2018-03-06T07:52:22.956-0700	zeebe	Merritt International	142.46	M
statistical-arbitrage-pt	statistical-arbitrage-pt:1	4295275072	2018-03-06T07:52:22.955-0700	2018-03-06T07:52:22.955-0700	zeebe	American Electric Power	66.95	A
statistical-arbitrage-pt	statistical-arbitrage-pt:1	4295302760	2018-03-06T07:52:22.955-0700	2018-03-06T07:52:22.955-0700	zeebe	Las Vegas Sands	74.33	L



Optimize: Design Custom Dashboards

Arrange your reports on your custom dashboards.

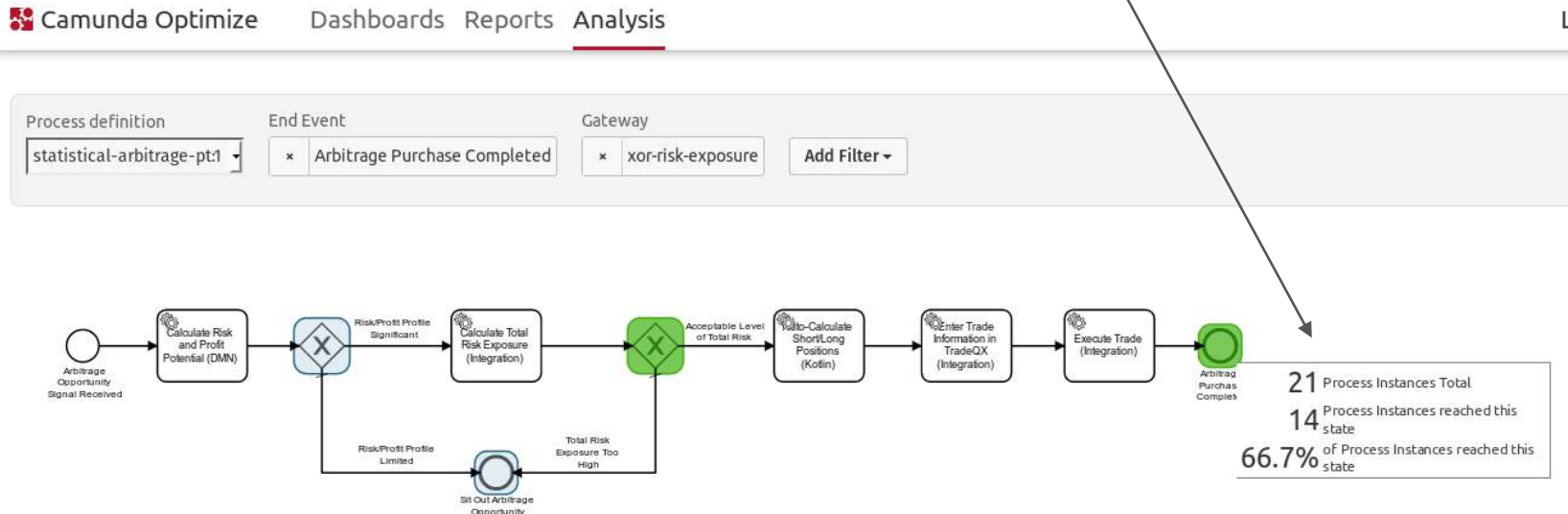


The screenshot displays the Camunda Optimize interface. At the top, there are navigation tabs for 'Dashboards', 'Reports', and 'Analysis'. The main content area is titled 'Invoice Monitor' and includes a 'Save' and 'Cancel' button. Below the title, it shows the last modification date and author. The central part of the dashboard features a 'Heatmap' visualization of a process flow, with a color gradient from blue to red indicating activity levels. The process flow includes steps like 'Invoice received', 'Invoice approved?', 'Invoice checked', 'Invoice successful?', 'Invoice not processed', 'Invoice rejected', 'Invoice approved?', 'Process back history', and 'Archive invoice'. A 'Financial Accounting System' data source is also shown. To the right of the heatmap is a grid for arranging reports. At the bottom left, there is a status bar with '1' and 'Elasticsearch'. At the bottom right, there is a copyright notice: '© Camunda Services GmbH 2017, All Rights Reserved | 2.0.0'.



Optimize: Branch Analysis

Analyze the outcomes of your instances based on gateways and events.

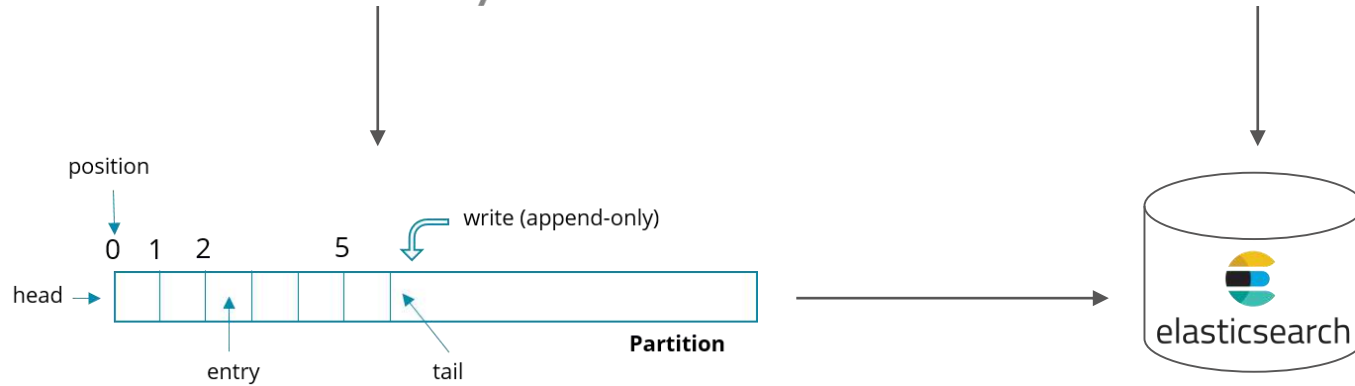




Zeebe and Optimize Sitting in a Tree...

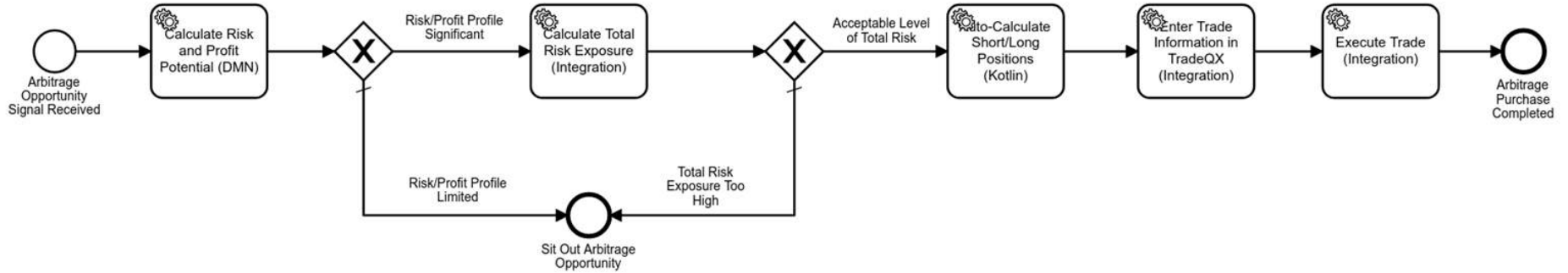


Camunda
Optimize





A Real World Use Case with Zeebe





Pairs Trading - A Statistical Arbitrage Strategy

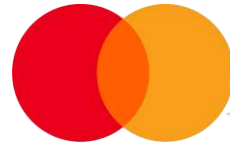
- Monitors the performance of two historically correlated securities.
- If the correlation weakens, bet that the spread will converge.

Walmart 



TARGET

VISA



mastercard.



RENAULT



PEUGEOT



Statistical Arbitrage

- Timing is everything!
- We don't care about being right all the time.
- We need to make lots of bets and be right $> 50\%$ of the time.

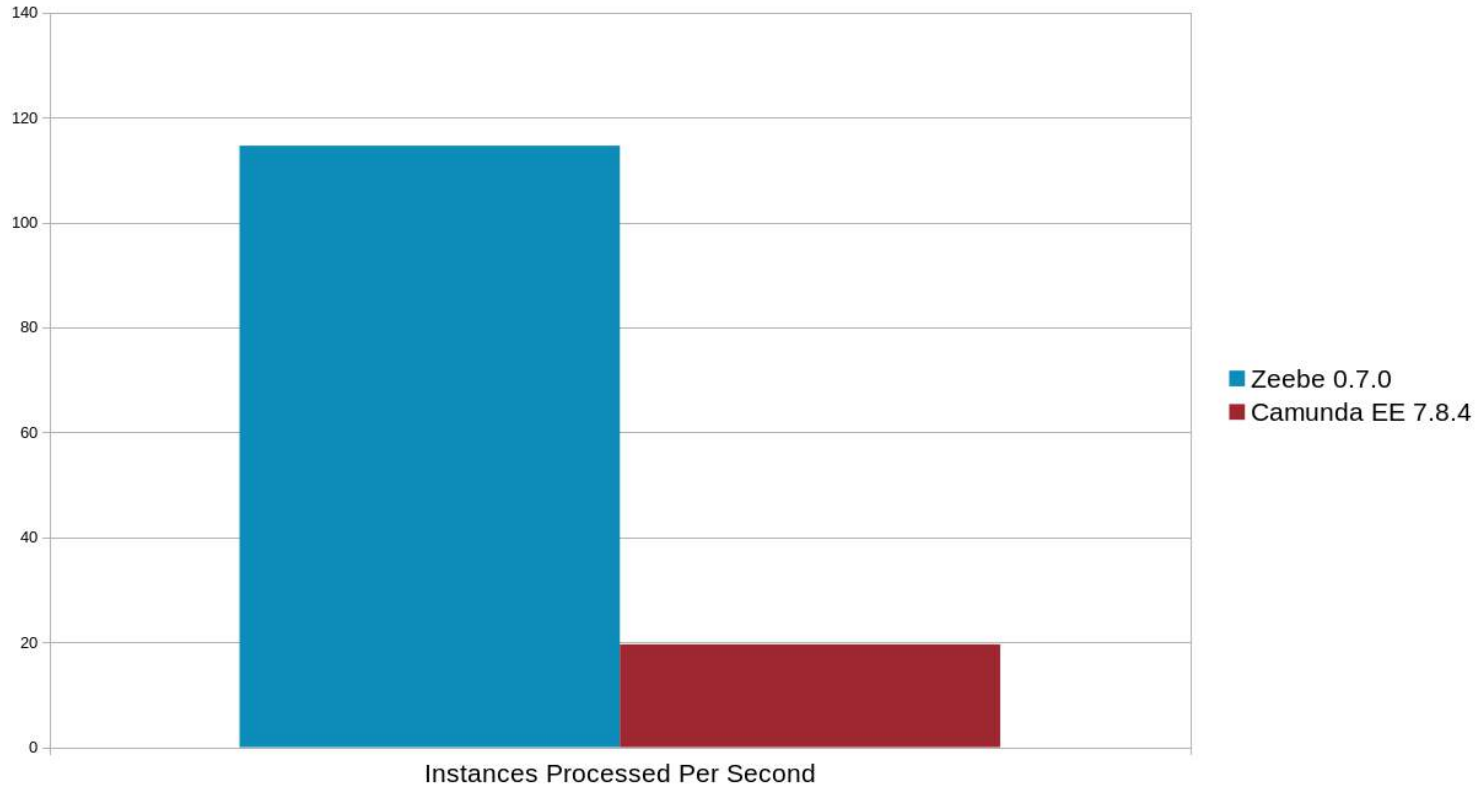
So?

- Volume...
- ... and performance are critical.





Statistical Arbitrage Performance - Zeebe vs. Camunda BPM



Demo!

