Bespoke Software Optimization

Online business performance and cost in time of crisis

www.datastork.io

Business advantage in the crisis

Covid-19 pandemic is disrupting the global economy

- It changes the way people live and do business
- Remote work, **online** meetings, Internet trading…

Online systems turn vital but may underperform under load

- Suboptimal software architecture is the leading factor for **performance** related losses

Acquire business advantage through optimal software architecture

- Serve multiple times **more** requests with far **less** computing resources
- Scale elastically with load
- Decrease costs and avoid downtime

DataStork at a glance

- Our mission: **great software** for demanding business
  - Performance re-architecturing and tuning for intensive workloads
  - Increasing availability through DevOps, AWS, and VMware expertise
- We **optimize** some of the largest software services
  - Clients thrusting us for scaling their core software systems include
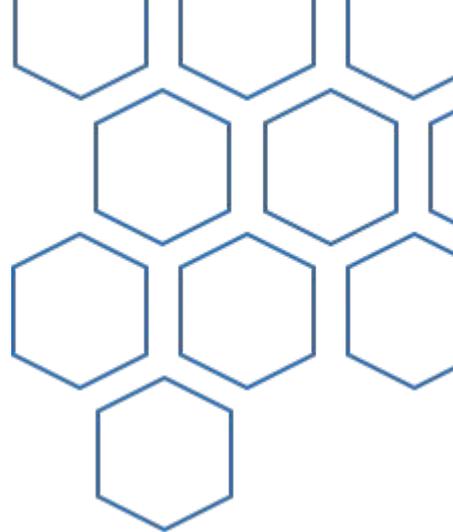
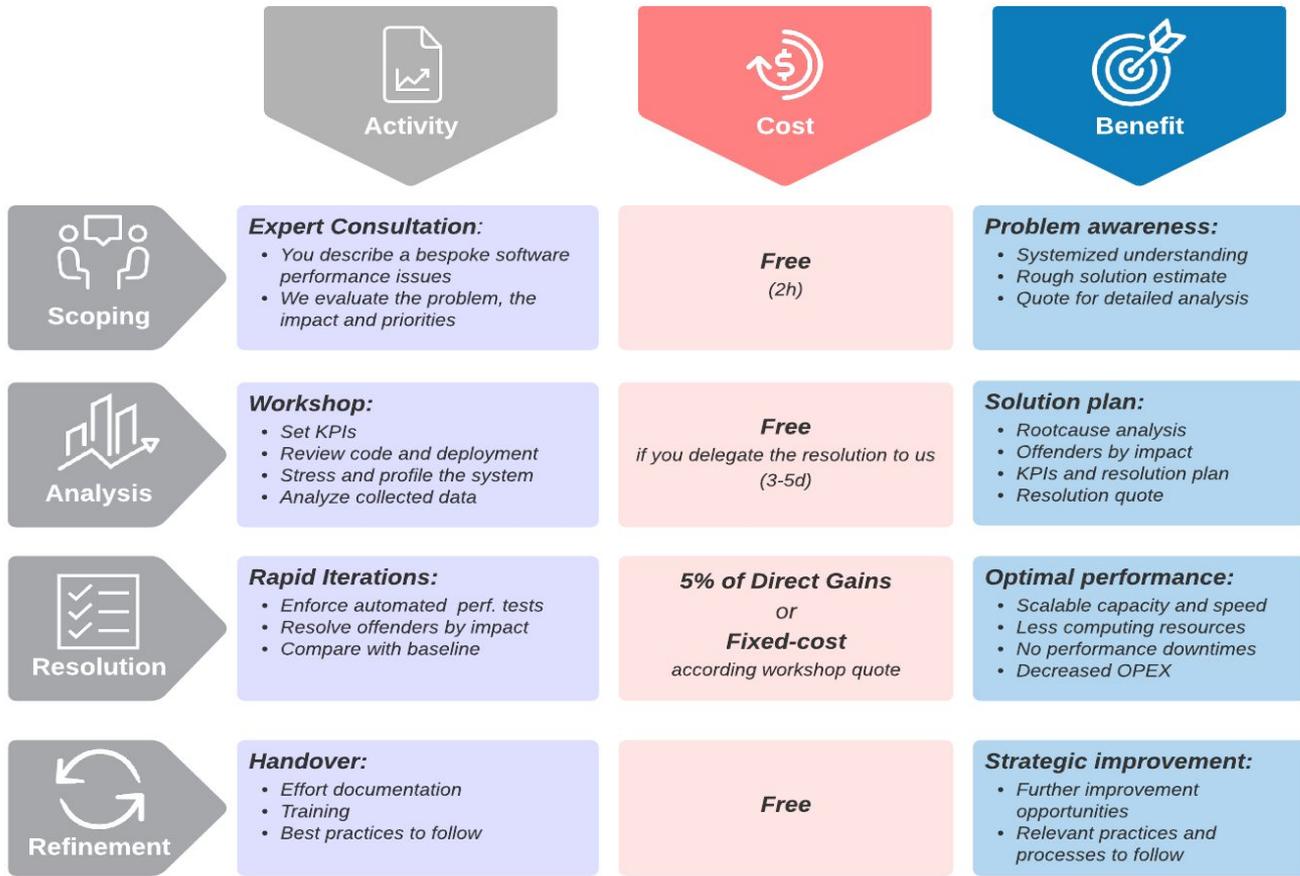# When do we get the call?

- **Unresponsive** software under load

  - requiring massive efforts to be kept alive and causing downtime

- **Costly** business critical systems

  - consuming excessive amounts of computing resources

- Systems that need to scale to accommodate **new load**

  - could be expensive or impossible with the current architecture

- Technology stack: AWS, Java/Spring, Databases

How it works?

Activity	Cost	Benefit
Scoping		
Expert Consultation: • You describe a bespoke software performance issues • We evaluate the problem, the impact and priorities	**Free** (2h)	**Problem awareness:** • Systemized understanding • Rough solution estimate • Quote for detailed analysis
Analysis		
Workshop: • Set KPIs • Review code and deployment • Stress and profile the system • Analyze collected data	**Free** if you delegate the resolution to us (3-5d)	**Solution plan:** • Rootcause analysis • Offenders by impact • KPIs and resolution plan • Resolution quote
Resolution		
Rapid Iterations: • Enforce automated perf. tests • Resolve offenders by impact • Compare with baseline	**5% of Direct Gains** or **Fixed-cost** according workshop quote	**Optimal performance:** • Scalable capacity and speed • Less computing resources • No performance downtimes • Decreased OPEX
Refinement		
Handover: • Effort documentation • Training • Best practices to follow	**Free**	**Strategic improvement:** • Further improvement opportunities • Relevant practices and processes to follow

Your team of leading experts

Ivan Dachev, 22 years

Architect of the Bosch IoT backbone

State-of-the-art **performance** to bridge millions devices in near real-time

Ilko Dragoev, 17 years

Lead in core VMware vSphere projects

Efficiency software managing thousands of Private/Public Cloud workloads

Stefan Enev, 12 years

Engineered Financial Times data systems

High **volume** analytics that serve massive 24/7 demand

Mission Critical Performance Optimization
Case Study

HedgeServ is a global financial administrator providing technology services to the largest investment funds. A carefully crafted **online software** for bookkeeping **reached its limits** due to increasing customer demand. Scale-up alleviations attempts led to massive resource consumption failing to resolve the daily downtimes.

Hedgeserv contacted DataStork to evaluate the issue. In a 5 day workshop, HedgeServ acquired a structured and precise understanding of the issues, their underlying causes and a quantified plan for their resolution.
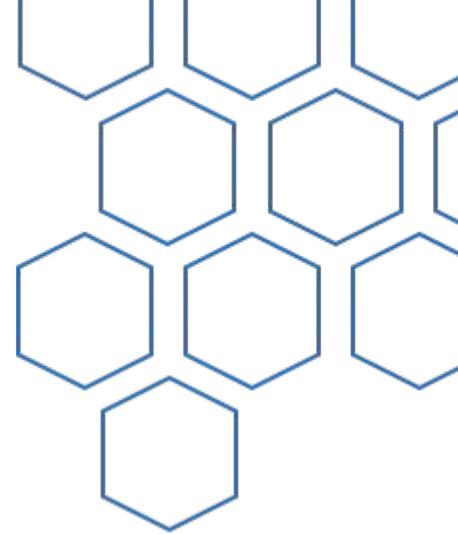
DataStork resolved the identified issues as planned in **2 x 10 days** sprints:
- Success criteria was set through the creation of comprehensive automated tests
- Rewrote key parts of the data-flow, optimizing memory structures and removing top performance bottlenecks

Hedgeserv devops rolled the solution in production and witnessed a complete resolution:
- **Memory** consumption dropped from **24GB to 2GB** per service instance
- **CPU** consumption stabilized to **10 times lower** values with no peaks
- Planned **downtime** due to resource exhaustion was brought to **zero**

One month and five days after engaging DataStork, HedgeServ had their critical online system back, delivering value to the growing business on the fraction of the legacy costs.

Thank you

- **Contact us for free consultation**

- **DataStork**
  - tel: +359 888 542 863
  - info@datastork.io
  - www.datastork.io
  - [47a Cherni Vrah Blvd, Sofia 1000, Bulgaria](#)