

Bigstream



# HYPERACCELERATE YOUR BIG DATA APPLICATIONS UP TO 10<sup>x</sup>

**FASTER**

**- WITHOUT CHANGING  
A SINGLE LINE  
OF CODE**

**Give Your  
Performance  
and Your  
Budget a Boost**

SEAMLESSLY ACCELERATE  
BIG DATA WORKLOADS

Bigstream provides simple, reliable solutions to improve performance and lower costs across your existing data environment.

### Easy to deploy

**Cloud:** Get immediate access with Bigstream on Amazon Web Services (AWS) EMR, or add it to your own EC2 instances using a simple script. You will benefit from software acceleration as well as FPGA hardware acceleration with certain instances.

**On-premises:** You can also add Bigstream to your data center, benefiting from software accelerators as well as FPGA and SmartSSD hardware acceleration.

### Easy to run

Absolutely no modifications are required to your existing Spark code. Just run our installation scripts once and enjoy instant acceleration!

Bigstream applies advanced optimization techniques to seamlessly accelerate Big Data workloads, allowing data science teams and other data users to enjoy dramatically faster processing times and lower operating costs for cloud-hosted or on-premises deployment.

Bigstream's products incorporate cutting-edge compiler optimizations and FPGA/GPU-based task offloading, delivering performance acceleration of up to 10x - all without requiring any code changes to your existing applications like Apache Spark™.

## Our Solutions



**USER BEHAVIOR  
ANALYSIS**



**FRAUD  
DETECTION**



**MACHINE  
LEARNING**



**ADVANCED  
ANALYTICS**



**SECURITY  
ANALYTICS**



**CLINICAL DECISION  
SUPPORT**

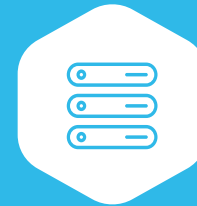


# How It Works

Compiler and hardware optimizations significantly accelerate the execution of your code

Bigstream delivers the maximum acceleration for your unique workflow based on two key drivers:

# Bigstream Deployment Options

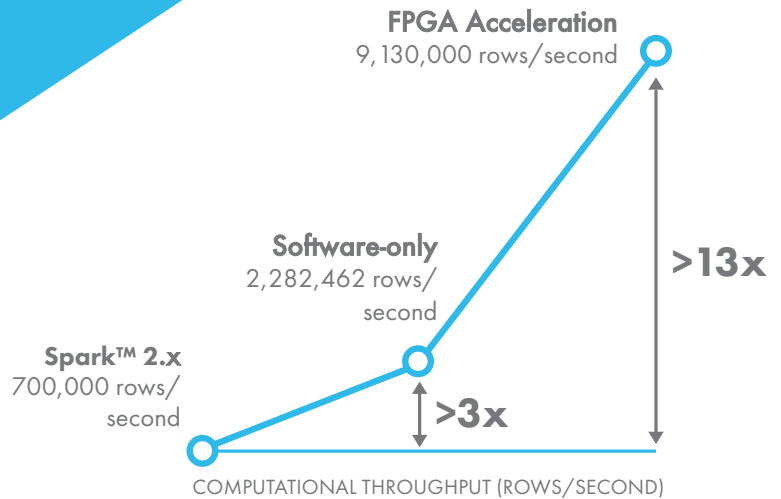


ON-PREMISES



AMAZON WEB SERVICES

# Our Performance



## Compiler Optimization

Bigstream extends the existing compilation processes of data platforms by:

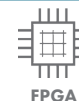
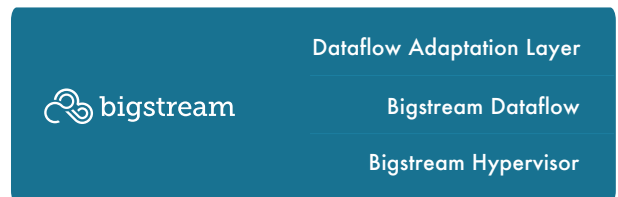
- Optimizing data type specifications to speed up numerical operations
- Minimizing data copy requirements between local disk/RAM/cache
- Reducing or eliminating the performance drag of garbage collection through precision memory management

## Hardware Acceleration

Bigstream delivers the highest level of performance by offloading CPU-intensive operations to accelerators including:

- Format conversion
- SQL operations/Machine Learning kernels
- Compression/Decompression

## Our Technology Stack



FPGA



CPU