

Bigstream NS/Bigstream XS



HYPER-ACCELERATE YOUR BIG DATA APPLICATIONS UP TO

30^x

FASTER

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

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

SEAMLESSLY ACCELERATE
BIG DATA & MACHINE LEARNING WORKLOADS

Bigstream provides nStream and xStream as two simple, reliable solutions to improve performance and lower costs across your existing Big Data clusters.

Easy to deploy

Bigstream NS: Get immediate access with Bigstream NS on Amazon Web Services, Microsoft Azure, Google Cloud Platform, or add it to your own instances using a simple script.

Bigstream XS: By using Bigstream XS on a server with FPGA accelerators, you can improve the performance much further.

Easy to run

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

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

Bigstream's products incorporate cutting-edge compiler optimizations and FPGA/GPU-based task offloading, delivering performance acceleration of up to 30x – all without requiring any code changes to your existing applications.

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 NS and Bigstream XS deliver the maximum acceleration for your unique workflow based on two key drivers:

Cutting-edge Compiler Optimization Techniques

Bigstream NS and Bigstream XS extend the existing compilation process in Big 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 XS delivers the highest level of performance by offloading CPU intensive operations to accelerators including:

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

Bigstream NS Deployment Options



AMAZON WEB SERVICES



GOOGLE CLOUD PLATFORM

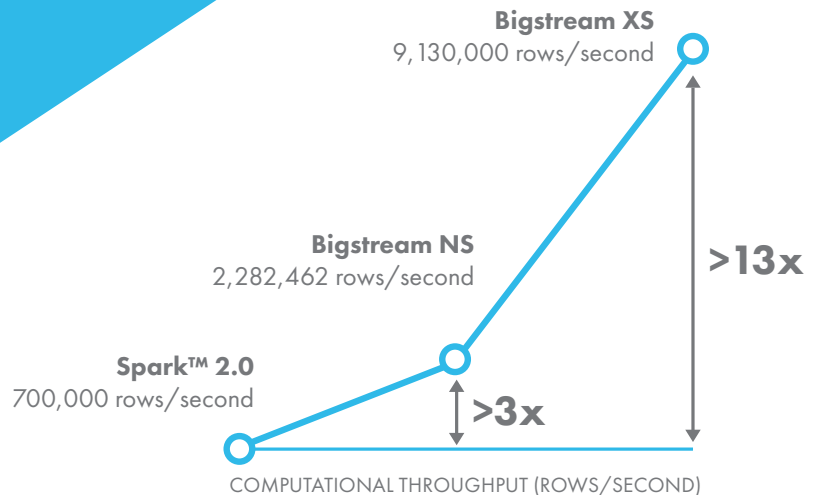


MICROSOFT AZURE

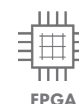


ON-PREMISE

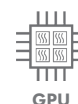
Our Performance



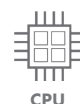
Our Technology Stack



FPGA



GPU



CPU