



Interconnect Your Future

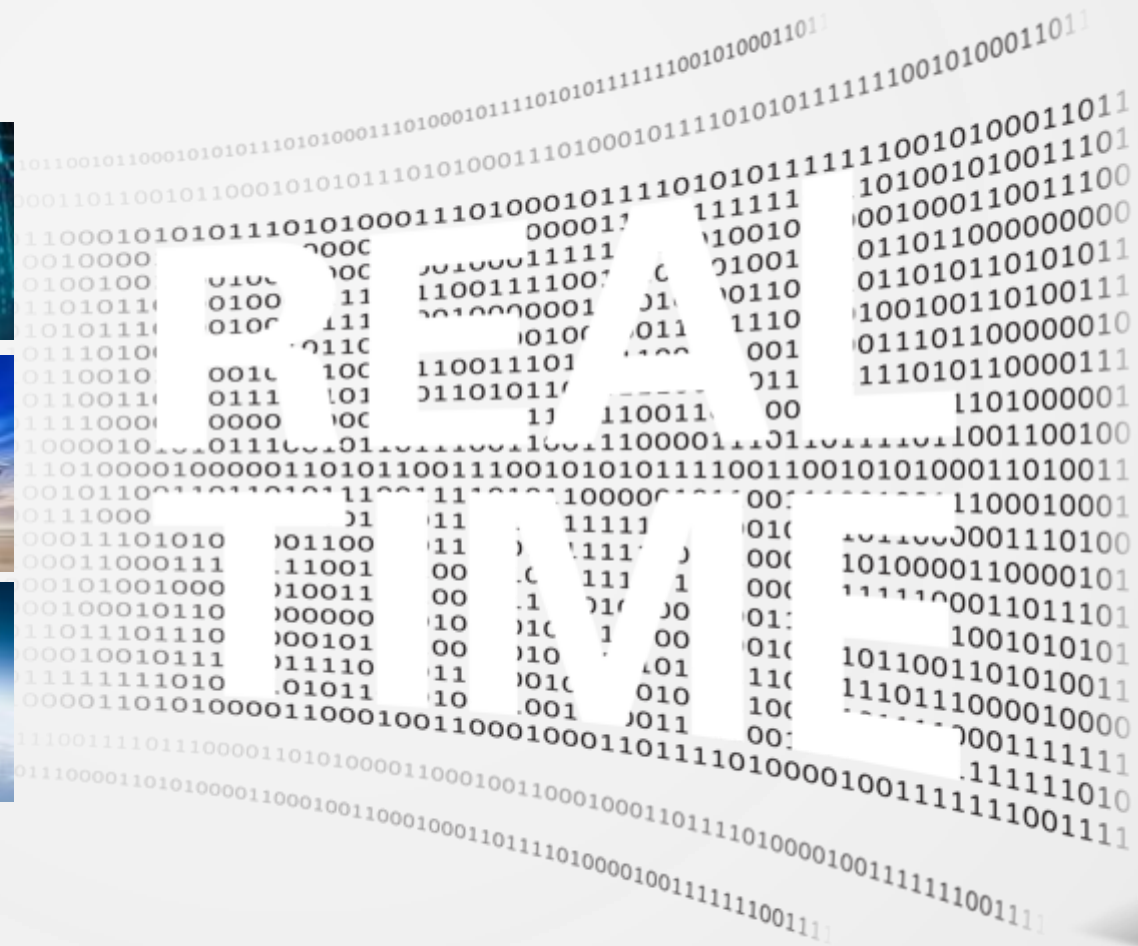
Paving the Road to Exascale

September 2018

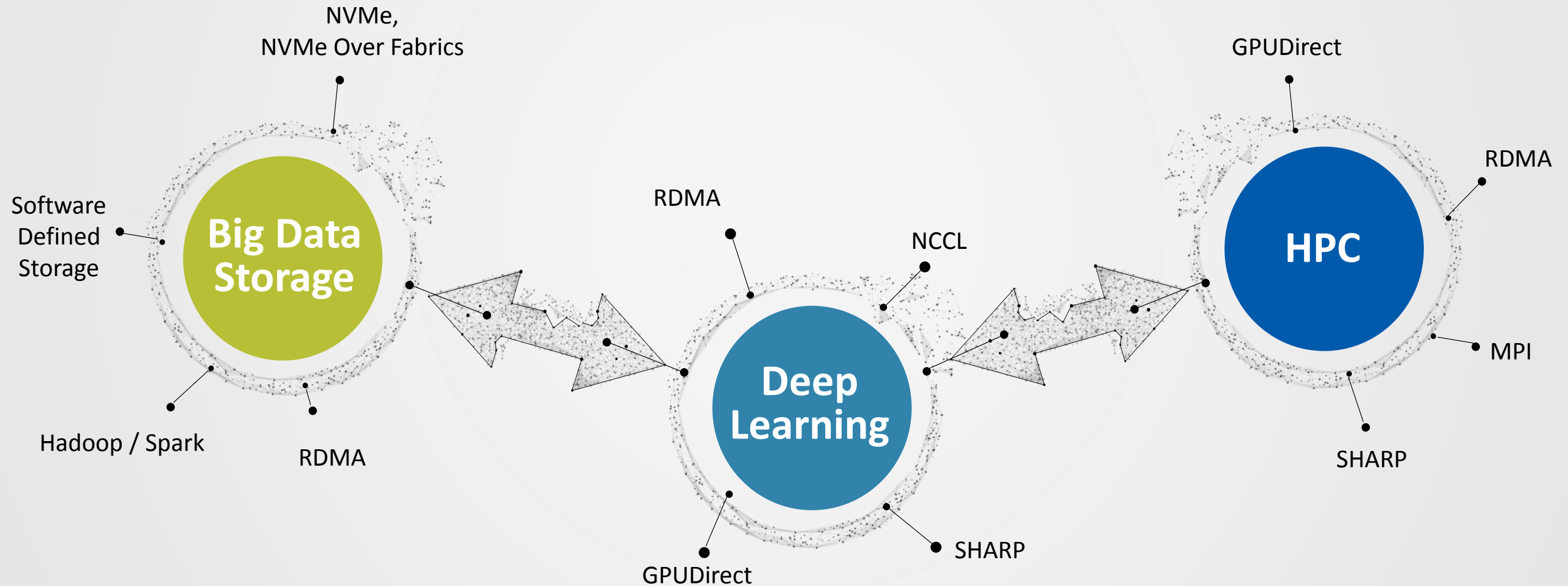
Unleashing the Power of Data

Exponential Growth of Data & Real Time Analytics

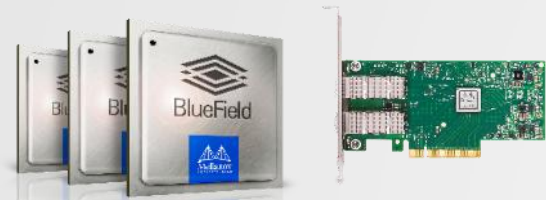
Requires Mellanox High Throughput, Low Latency, Smart Interconnect Solutions



Same Interconnect Technology Enables a Variety of Applications



HPC and AI Needs the Most Intelligent Interconnect



SmartNIC



System on a Chip

Higher

Data Speeds

Faster

Data Processing

Better

Data Security



Adapters



Switches



Cables & Transceivers

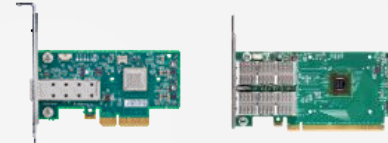


Highest Performance 100, 200 and 400Gb/s Interconnect Solutions

ConnectX-6

Adapters

200Gb/s, 0.6us Latency
200 Million Messages per Second
(10 / 25 / 40 / 50 / 56 / 100 / 200Gb/s)



Mellanox
Quantum

Switch

40 HDR (200Gb/s) Ports
80 HDR100 (100Gb/s) Ports
16Tb/s Throughput, 15.6 Billion msg/sec



Spectrum-2

Switch

16 400GbE Ports, 32 200GbE Ports
64 100GbE Ports, 128 25/50GbE Ports
Throughput of 6.4Tb/s



LinkX

Interconnect

Transceivers
Active Optical and Copper Cables
(10 / 25 / 40 / 50 / 56 / 100 / 200Gb/s)



Mellanox Accelerates Leading HPC and AI Systems

World's Top 3 Supercomputers



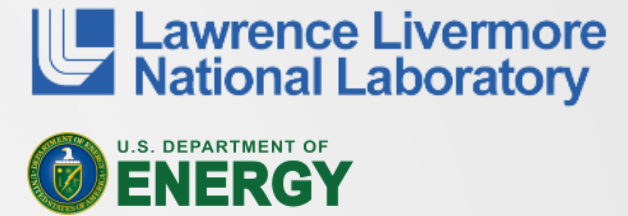
1

Summit CORAL System
World's Fastest HPC / AI System
9.2K InfiniBand Nodes



2

Wuxi Supercomputing Center
Fastest Supercomputer in China
41K InfiniBand Nodes



3

Sierra CORAL System
#2 USA Supercomputer
8.6K InfiniBand Nodes



Mellanox Accelerates Leading HPC and AI Systems

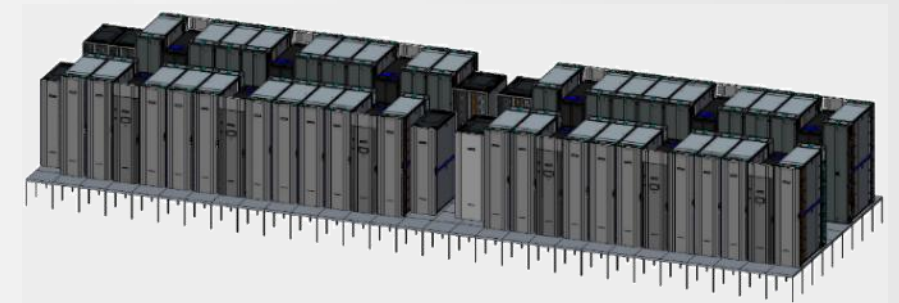
(Examples)



Fastest HPC / AI System in Japan
1.1K InfiniBand Nodes



The world's Fastest Industry
Supercomputer
1.6K InfiniBand Nodes



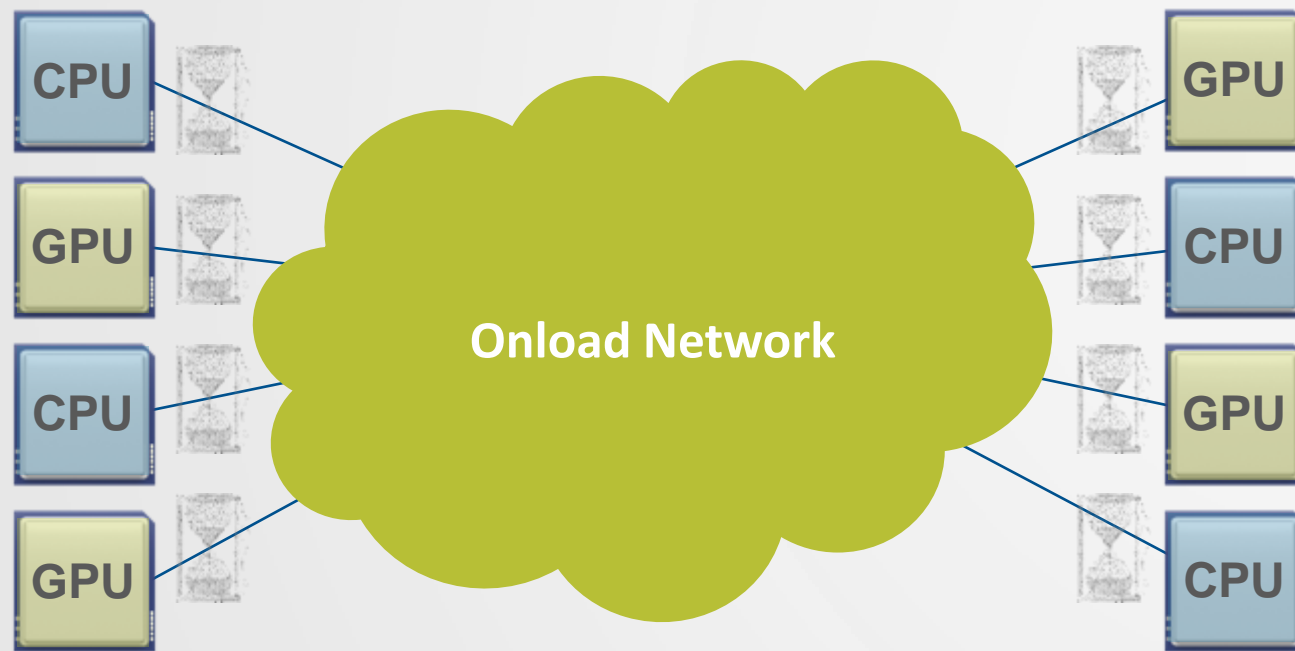
'Astra' Arm-Based Supercomputer
NNSA Vanguard Program
2.6K InfiniBand Nodes

To be Listed Nov'18 (TOP100)

The Need for Intelligent and Faster Interconnect

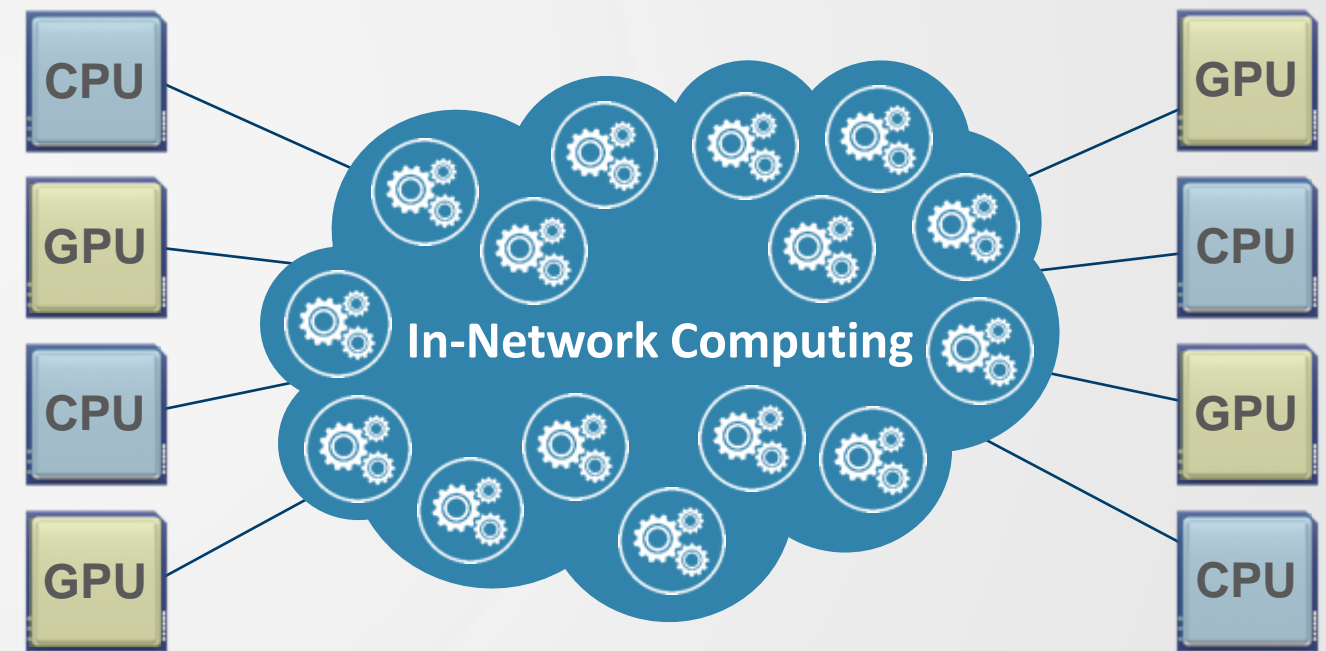
Faster Data Speeds and In-Network Computing
Enable Higher Performance and Scale

CPU-Centric (Onload)



Must Wait for the Data
Creates Performance Bottlenecks

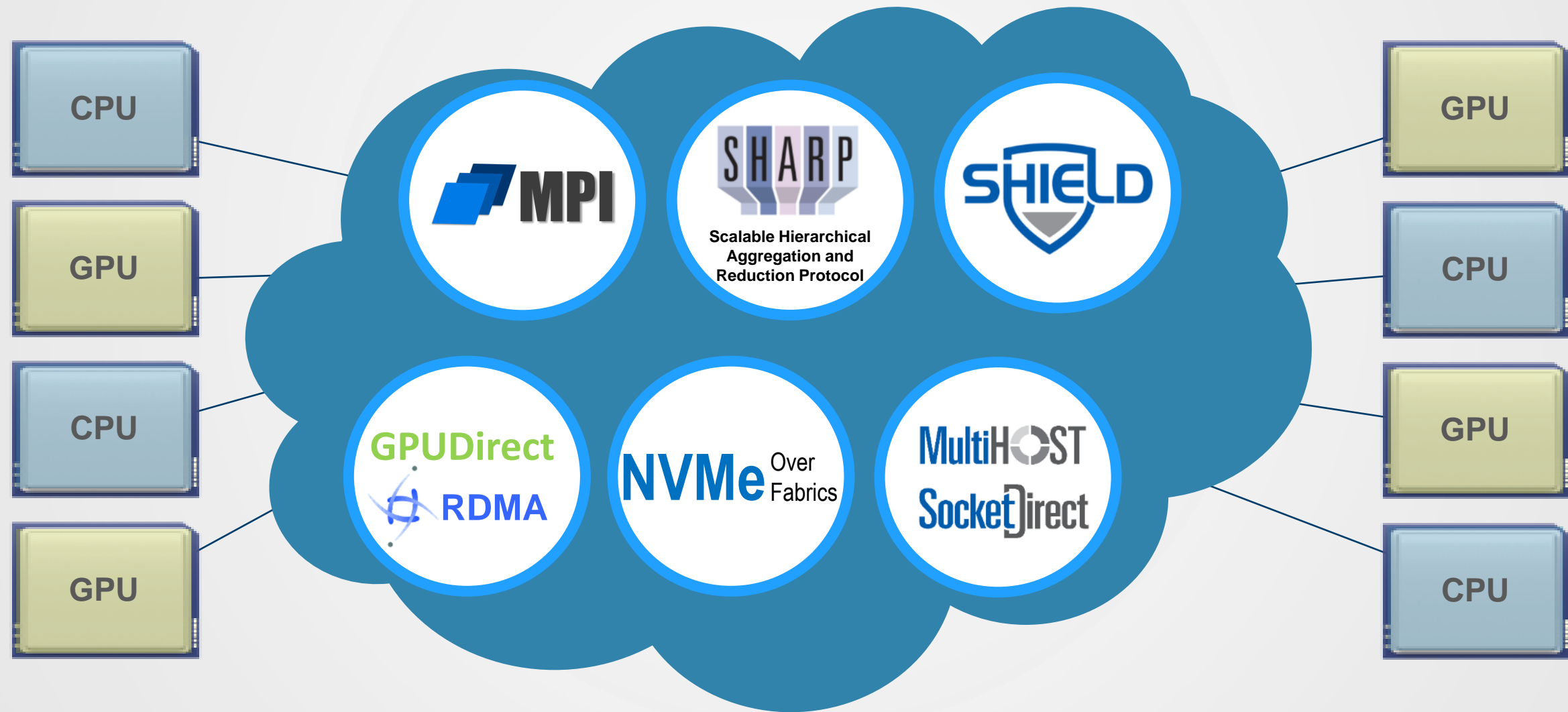
Data-Centric (Offload)



Analyze Data as it Moves!
Higher Performance and Scale



In-Network Computing to Enable Data-Centric Data Centers



In-Network Computing Delivers Highest Performance



In-Network Computing



10X

Performance Acceleration
Critical for HPC and Machine Learning Applications



In-Network Computing



35X

Performance Acceleration
Delivers Highest Application Performance



Self-Healing Technology



5000X

Faster Network Recovery
Unbreakable Data Centers

GPU Direct™ RDMA
GPU Acceleration Technology



10X

Performance Acceleration
Critical for HPC and Machine Learning Applications

InfiniBand Delivers Best Return on Investment

- 30%-250% Higher Return on Investment
- Up to 50% Saving on Capital and Operation Expenses
- Highest Applications Performance, Scalability and Productivity

Weather

1.9X
Better



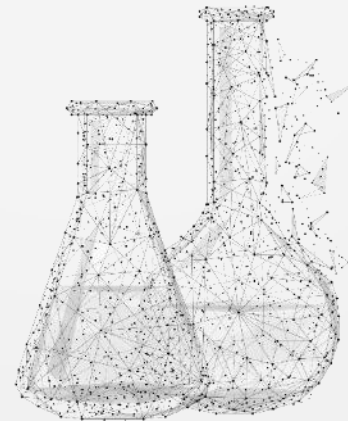
Automotive

2X
Better



Chemistry

1.4X
Better



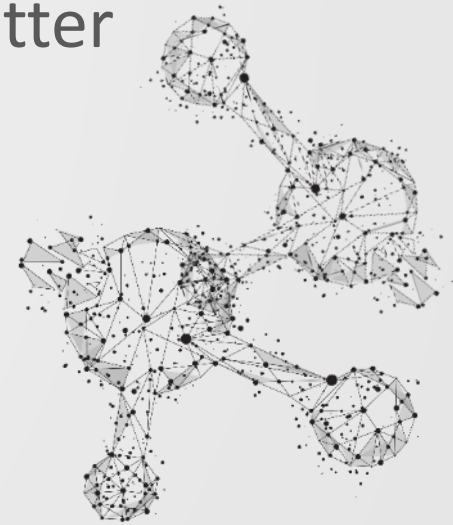
Genomics

1.3X
Better



Molecular Dynamics

2.5X
Better



Unlocking the Power of Artificial Intelligence

RDMA Supercharges Leading AI Frameworks



Mellanox Supercharges Leading AI Companies

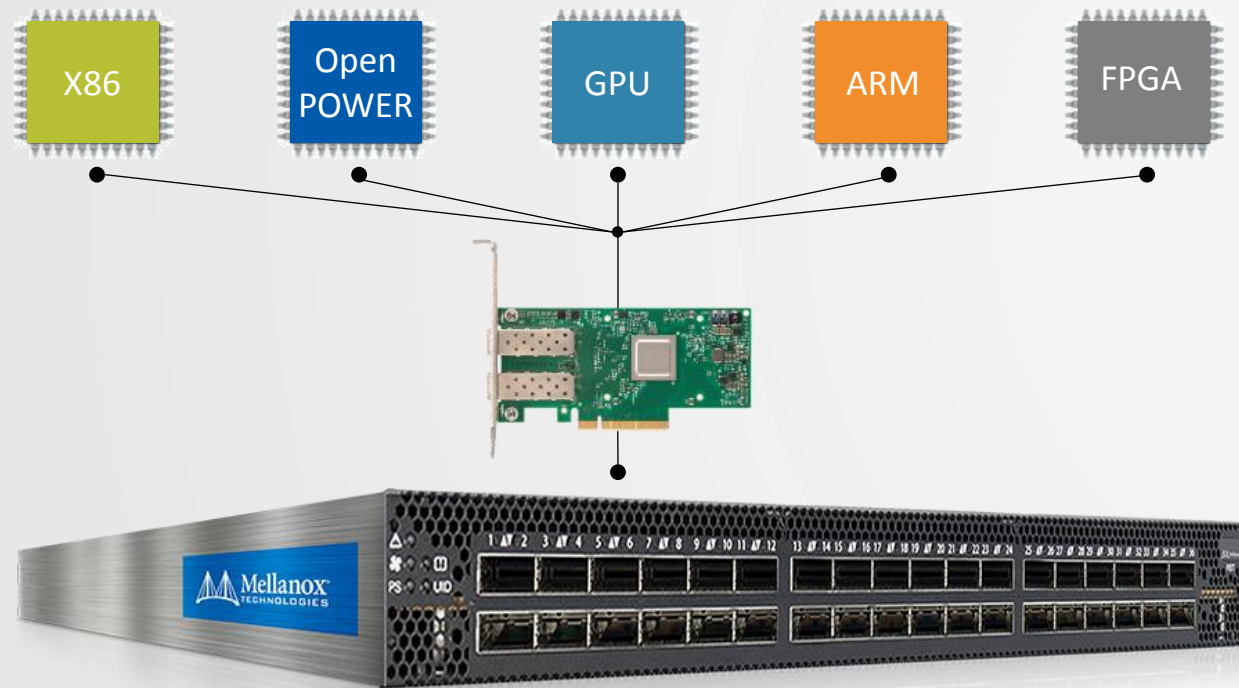


60%
Higher ROI

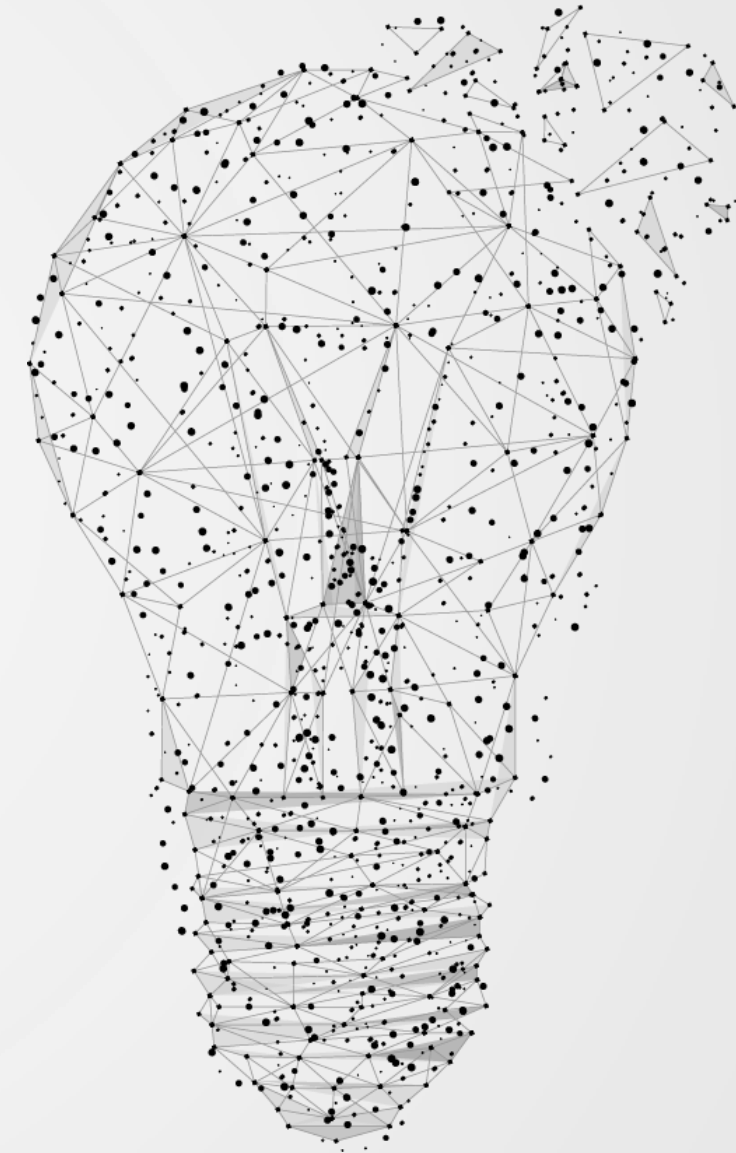
50%
Lower CapEx
& OpEx

End-to-End Solutions for All Platforms

Unleashing the Power of all Compute Architectures



Highest Performance and Scalability for Intel, AMD, IBM Power, NVIDIA, Arm and FPGA-based Compute and Storage Platforms at 10, 20, 25, 40, 50, 100, 200 and 400Gb/s Speeds



Mellanox Overview

Company Headquarters

- Yokneam, Israel
- Sunnyvale, California
- Worldwide Offices

~2,700

Employees worldwide



Ticker: MLNX

