INNOVATORS ACROSS INDUSTRIES ARE ACCELERATING THEIR DATA CENTERS WITH GPUs

RESULTING IN

NEW SCIENTIFIC DISCOVERIES
DEEPER BUSINESS INSIGHTS
SMARTER PRODUCTS & SERVICES

THE HPC COMMUNITY HAS EMBRACED GPU ACCELERATION OVER 450 APPLICATIONS

70% OF THE TOP 50
10 OF THE TOP 10
EVERY MAJOR DEEP LEARNING FRAMEWORK

NEW SCIENTIFIC DISCOVERIES
DEEPER BUSINESS INSIGHTS
SMARTER PRODUCTS & SERVICES

THE ACCELERATED DATA CENTER
Drive new levels of throughput – and innovation.

with tremendous adoption across HPC applications

FLIGHT
NAVDX | VAP | SIMULIA | LS-DYNA

OVER 450

70%
10
EVERY

SEE HOW YOU CAN BOOST THROUGHPUT WHILE LOWERING COSTS

Let’s look at a data center with a daily throughput of 1,000 JOBS PER DAY

CPU-ONLY DATA CENTER
Assume 1 server can handle 1 job

GPU-ACCELERATED DATA CENTER
Assume 70% of the jobs are accelerated with 5x speed up

1,000 SERVERS
GPU/ACCELERATED

440 SERVERS
CPU/ONLY

56% LESS

TOTAL COST OF ACQUISITION

HARDWARE & SOFTWARE COST
LESS RACKS
NETWORK EQUIPMENT
LOWER

TOTAL COST OF OWNERSHIP

OPERATIONAL COST
POWER CONSUMPTION
SPACE REQUIREMENTS

MODERN ARTIFICIAL INTELLIGENCE
SMARTER PRODUCTS
CANCER DRUG DESIGN
SCIENTIFIC UNDERSTANDING
BUSINESS INSIGHTS
CUSTOMER SECURITY
UNIVERSE EXPANSION
BIG DATA

MODERN ARTIFICIAL INTELLIGENCE
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Download the NVIDIA Tesla whitepaper on GPU-accelerating your data center. www.nvidia.com/datacenterthroughput