



THE ACCELERATED DATA CENTER

Drive new levels of throughput – and innovation.

INNOVATORS ACROSS INDUSTRIES ARE ACCELERATING THEIR DATA CENTERS WITH GPU_s

HIGHER EDUCATION 	GOVERNMENT LABS 	CLOUD SERVICES 	CLIMATE & WEATHER
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RESULTING IN

NEW SCIENTIFIC DISCOVERIES

DEEPER BUSINESS INSIGHTS

SMARTER PRODUCTS & SERVICES

THE HPC COMMUNITY HAS EMBRACED GPU ACCELERATION

with tremendous adoption across HPC applications

- FLUENT
- NAMD
- VASP
- SIMULIA ABAQUS
- WRF
- OpenFOAM
- GROMACS
- AMBER
- LS-DYNA

OVER 400 APPLICATIONS	70% OF THE TOP 50	9 OUT OF THE TOP 10	EVERY MAJOR DEEP LEARNING FRAMEWORK
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- Caffe
- Chainer
- CNTK
- MatConvNet
- TensorFlow
- theano
- torch

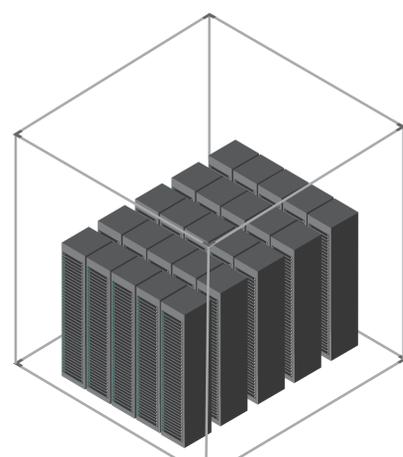
SEE HOW YOU CAN BOOST THROUGHPUT WHILE LOWERING COSTS

Let's look at a data center with a daily throughput of

1,000
JOBS PER DAY

CPU-ONLY DATA CENTER

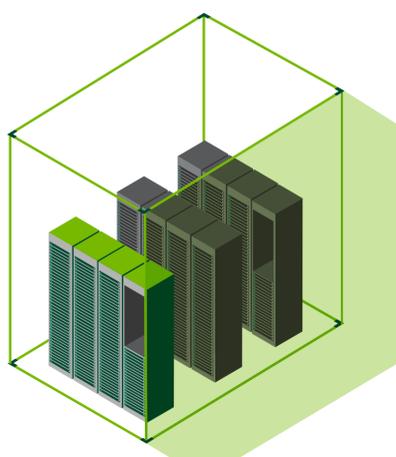
Assume 1 server can handle 1 job



1,000
SERVERS

GPU-ACCELERATED DATA CENTER

Assume 70% of the jobs are accelerated with 5x speed up



440
SERVERS

140 GPU-accelerated
300 CPU-only servers

56%
LESS

TOTAL COST OF ACQUISITION

HARDWARE & SOFTWARE COST

LESS RACKS

NETWORK EQUIPMENT



LOWER

TOTAL COST OF OWNERSHIP

OPERATIONAL COST

POWER CONSUMPTION

SPACE REQUIREMENTS

BOOST DATA CENTER THROUGHPUT
DISCOVER, CREATE, AND DELIVER MORE THAN EVER BEFORE

Get to know the NVIDIA® Tesla® accelerator family, including the advanced new Tesla P100.

www.nvidia.com/tesla

Download the NVIDIA Tesla whitepaper on GPU-accelerating your data center.

www.nvidia.com/datacenterthroughput