NVIDIA DGX STATION™ A100

A WORKGROUP APPLIANCE
FOR THE AGE OF AI

DATA CENTER PERFORMANCE WITHOUT THE DATA CENTER

4X NVIDIA A100 TENSOR CORE GPUs
160 or 320 gigabytes (GB) total GPU memory. Fully interconnected with high-bandwidth, third-generation NVIDIA® NVLink® at 200 GB/s

7.68 TERABYTE (TB) PCIE GEN4 NVME SOLID-STATE DRIVE (SSD)
Delivers 1.4M IOPS storage performance, 2X faster than PCIe Gen3 NVMe SSDs

REFRIGERANT COOLING
Whisper quiet, a perfect solution for your desk while stil being optimized for performance

64-CORE AMD CPU AND PCIE GEN4
3.2X more cores to power multiple users and the most intensive AI jobs, 512GB system memory

NVIDIA DGX™ DISPLAY ADAPTER
4x Mini DisplayPort, 4K resolution

REMOTE MANAGEMENT
Integrated 1Gbase-T Ethernet baseboard management controller (BMC) port

2.5 PETAFLOPS	3X FASTER	<1 HOUR	2 CABLES	0 DATA CENTER
of AI performance	average training performance than prior gen[1]	from unpacking to up-and-running	and a floor is all you need to operate	requirements; just plug in to any wall socket

[1] Inference: Batch Size=256; INT8 Precision; Synthetic Data; Sequence Length=128, cuDNN 8.0.4

BIGGER MODELS, FASTER ANSWERS

UNPARALLELED AI PERFORMANCE

TRAINING

BERT Large Pre-Training Phase 1 (Relative Performance)
DGX Station A100 320GB; Batch Size=64; Mixed Precision; With AMP; Real Data; Sequence Length=128

DGX Station A100 — OVER 3X FASTER — 3.17X
DGX Station — 1X

INFERENCE

BERT Large Inference (Relative Performance)
DGX Station A100 320GB; Batch Size=256; INT8 Precision; Synthetic Data; Sequence Length=128, cuDNN 8.0.4

DGX Station A100 — OVER 4X FASTER — 4.35X
DGX Station — 1X

MULTI-GPU SCALABILITY

ResNet-50 V1.5 Training (Images per Second)
DGX Station A100 320GB; Batch Size=192; Mixed Precision; Real Data; cuDNN Version=8.0.4; NCCL Version=2.7.8; NGC MXNet 20.10 Container

4 GPUs — LINEAR SCALABILITY — 7,666
2 GPUs — 3,975
1 GPU — 2,066

A POWERFUL TOOL FOR DATA SCIENCE TEAMS

A SHARED SYSTEM WITHOUT LIMITS—TRAINING, INFERENCE, DATA ANALYTICS

Multi-Instance GPU (MIG) in a single NVIDIA DGX™ Station A100 gives

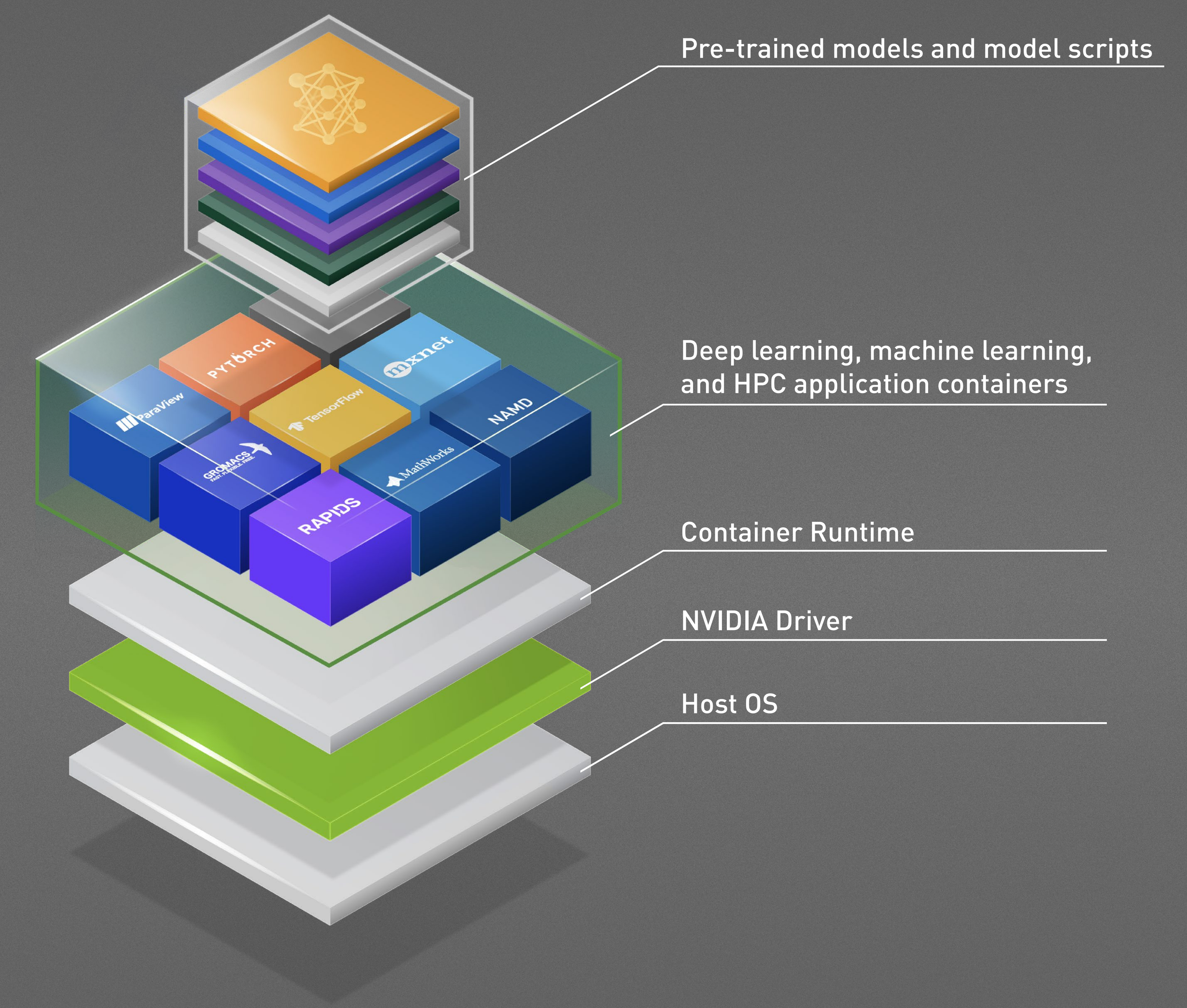
12
developers the performance equivalent to

2
dedicated NVIDIA V100 Tensor Core GPUs each or

6
dedicated 28-dual core CPU servers each

FASTEST TIME TO INSIGHTS WITH NVIDIA AI OPTIMIZED SOFTWARE

FULLY INTEGRATED SOFTWARE STACK FOR INSTANT PRODUCTIVITY



Developed and Tested on DGX
Run your AI projects on the exact same platform NVIDIA engineers use to develop and test optimized AI software.

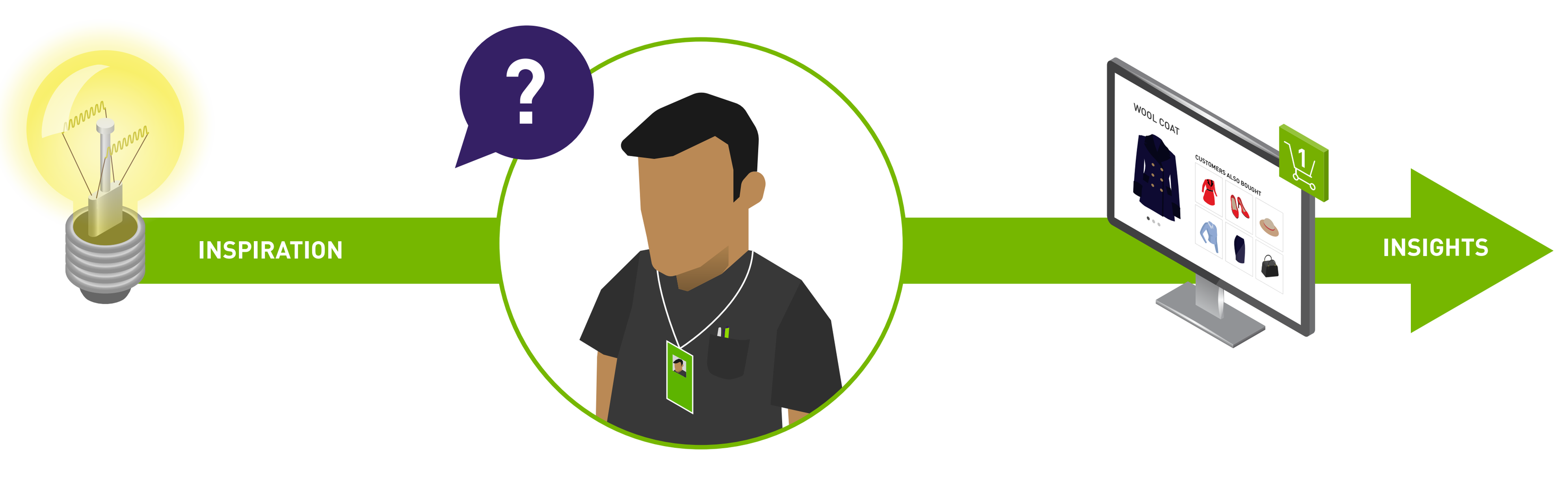
Always the Best Performance
Monthly updates to key AI tools and stack optimizations deliver better performance over time on the exact same hardware.

Get Results Sooner
Pre-trained models, scripts, and more translate to better results sooner over do-it-yourself problem solving.

Consistency Across DGX Systems
The same base operating system and quality-assurance testing ensure easy and predictable interoperability.

DIRECT ACCESS TO A GLOBAL TEAM OF NVIDIA DGXPERTS

GET UNMATCHED AI EXPERTISE WITH EVERY DGX SYSTEM



NVIDIA With You Every Step of the Way
Design | Plan | Build | Test | Deploy | Operate | Monitor

10+	100+	10,000+
years of AI innovation	GPU-optimized software and tools on NGC™	of AI-fluent practitioners around the globe

Experiment, Prototype, Develop. From Anywhere.
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