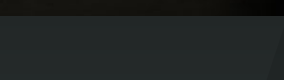


# THE WORLD'S MOST EFFICIENT SUPERCOMPUTER FOR AI AND DEEP LEARNING

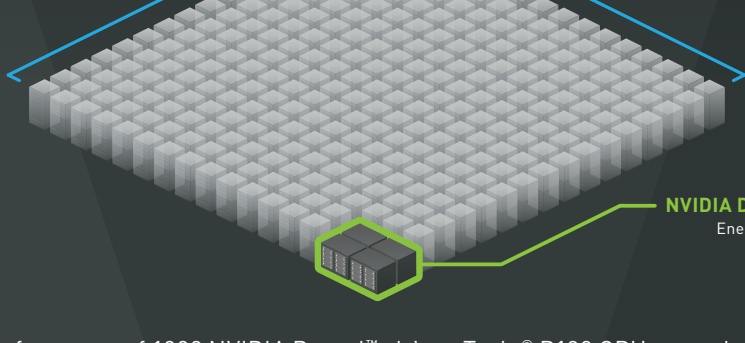
NVIDIA DGX SATURNV



## A LEAP FORWARD IN EXASCALE COMPUTING EFFICIENCY

The DGX SATURNV taps into the compute power of 125 NVIDIA® DGX-1™ server nodes to drive new levels of deep learning and AI analytics.

TRADITIONAL SUPERCOMPUTER  
Energy Usage



NVIDIA DGX SATURNV  
Energy Usage



The performance of 1000 NVIDIA Pascal™-driven Tesla® P100 GPUs, coupled with NVIDIA's deep learning software stack, delivers superior AI-accelerated analytics, deep learning, data processing, time to insights, and visualization of large datasets.



DGX SATURNV helps solve the world's most difficult challenges through AI, while also being a good steward of the environment.

Less energy and faster compute mean a smaller data center footprint. What once required a warehouse can now fit in the equivalent of a large conference room.

## FASTER NEURAL NETWORKS TRAINING FOR SMARTER RESULTS INTELLIGENCE

The deeper the neural network, the more abstract concepts it can learn, the more intelligent it becomes. It's the difference between a network being able to simply identify a square versus knowing an image is a specific type of cancer cell.



## TAP INTO THE WORLD'S FASTEST GPUs POWER

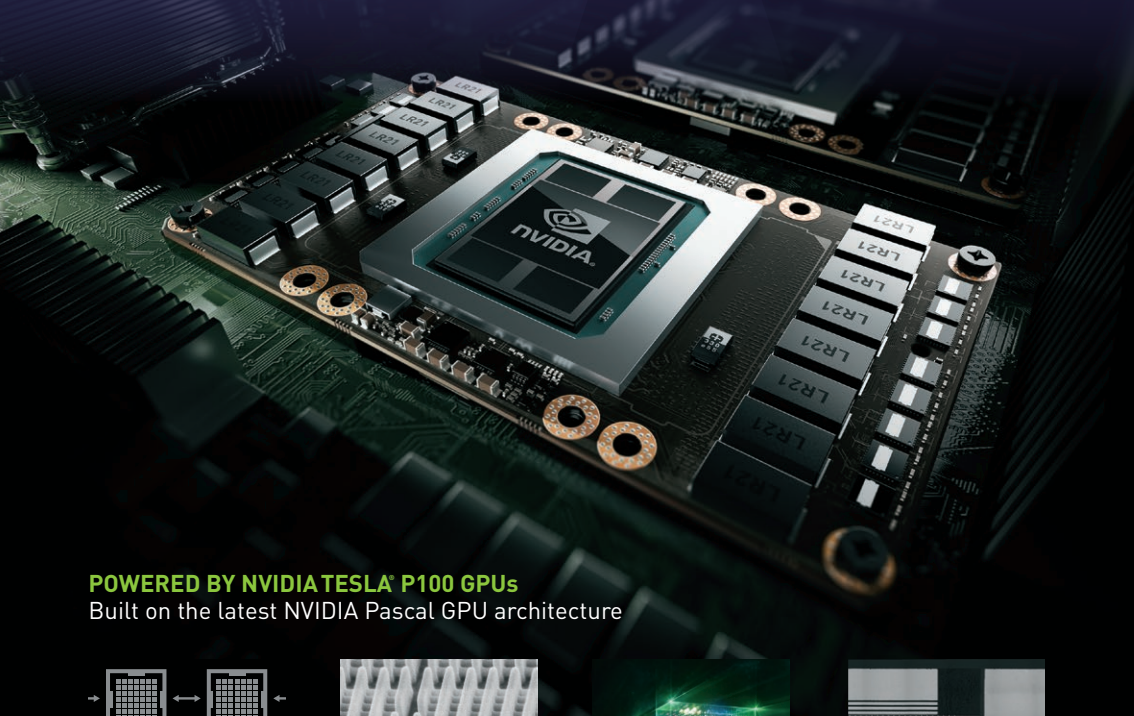
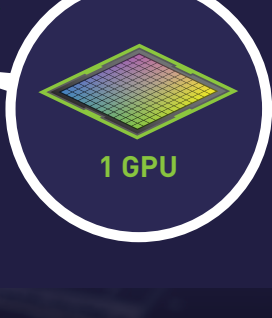
Neural networks are the backbone of artificial intelligence, but training them takes an incredible amount of time and compute power. With GPUs, hundreds of networks can now be trained in parallel, accelerating solutions for some of the world's hardest problems through AI.

125  
NODES

8  
GPUs  
PER NODE

1,000  
GPUs  
TOTAL

3.3 × 100,000,000,000,000  
3.3 PETAFLOPS



POWERED BY NVIDIA TESLA® P100 GPUs  
Built on the latest NVIDIA Pascal GPU architecture

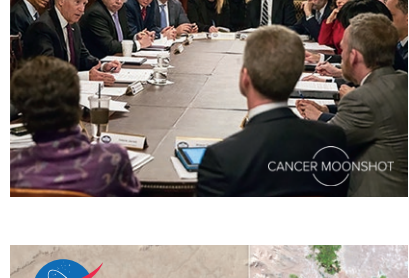
Revolutionary NVIDIA NVLink™ high-speed bidirectional interconnect for maximum multi-GPU application

16 nanometer FinFET 3D transistors for faster performance with lower power consumption

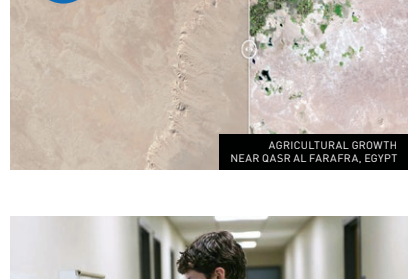
Performance-optimized deep learning software that accelerates all major deep learning frameworks

CoWoS® with HBM2 high-bandwidth memory for 3X the bandwidth of the previous generation at lower power

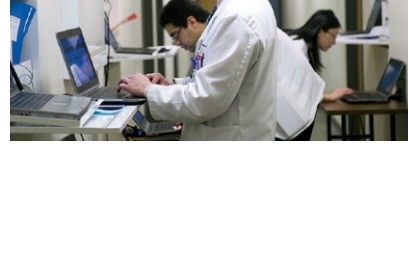
## TRANSFORMING INDUSTRIES WITH AI SUPERCOMPUTING IMPACT



**THE NATIONAL CANCER MOONSHOT INITIATIVE**  
NVIDIA is teaming with the National Cancer Institute, and U.S. Department of Energy to create an AI platform for accelerating cancer research.



**NASA AMES GLOBAL CLIMATE CHANGE**  
A deep learning framework for Satellite Image Classification helps safeguard our planet by using satellite imagery and DeepSAT to measure the effects of carbon and greenhouse gases on crops, vegetation, and the urban landscape.



**ICAHN SCHOOL OF MEDICINE**  
The school developed 'Deep Patient', a tool trained on thousands of patient records using GPU accelerators to identify high-risk patients.



NVIDIA DGX-1 IS THE HEART AND SOUL OF DGX SATURNV

To learn why visit [www.nvidia.com/dgx-1](http://www.nvidia.com/dgx-1)