FUJITSU

The training of deep neural networks with traditional single precision (32-bit) requires massive computing power and consumes vast amounts of energy. Fujitsu provides a new technology that greatly accelerates the process of deep learning training compared to GPUs available on the market today. **Impossible? See how this was achieved ...**

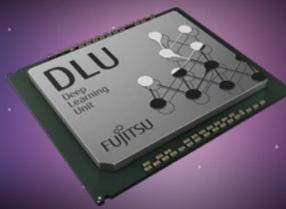Domain-specific processor architecture

Deep Learning Integer "DL-INT"

Domain-specific interconnect technology

3 innovations powered by the new Deep Learning Unit (DLU)

DLU

Maximized performance/watt

Heterogeneous cores consisting of control cores and many execution cores in DLU **reduce power consumption tremendously.**

100% Simplified memory access. The unique DLU architecture and software utilizes internal memory efficiently.

Optimal accuracy

75% less data needed!

32 bit DL-INT delivers optimal accuracy with just 8 bit data size instead of 32 bit.

The smaller data sizes also reduce power consumption compared to FP32.

Massively parallel throughput

Unique interconnect technology reduces transfer data size among DLUs. The result is a workload of only 25% compared to conventional systems.

Massive scale of nodes and DLUs without any bottlenecks.

The outcome:
Deep learning with 10 times more performance/watt*

Faster training and inferences
→ Go productive faster with your deep learning app
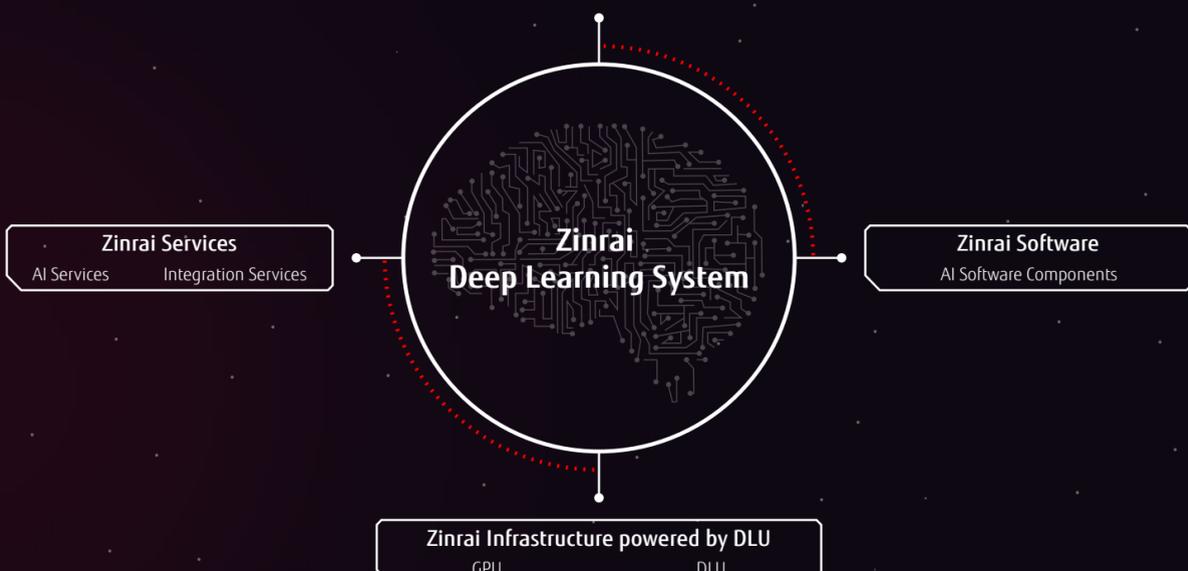→ Make inferences with high throughput

Reduce costs
→ Save working hours with faster training time and easy migration
→ Save power consumption
→ Optimize resource utilization in the data center

Start small and expand as you like
→ Scale gradually without network bottlenecks
→ Just replace infrastructure and leverage investments in software and frameworks

One end-to-end solution –
ready to run your deep learning use case

Zinrai Deep Learning System

Zinrai Services
AI Services   Integration Services

Zinrai Software
AI Software Components

Zinrai Infrastructure powered by DLU
GPU   DLU

Do you want to go deeper?
Then get in touch with us now. Join us in shaping the future!

Learn more: https://www.fujitsu.com/global/ai

shaping tomorrow with you