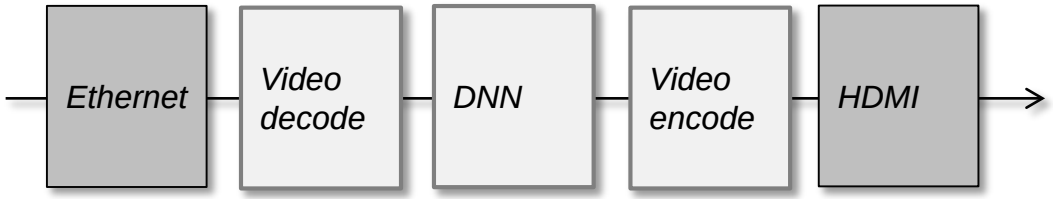
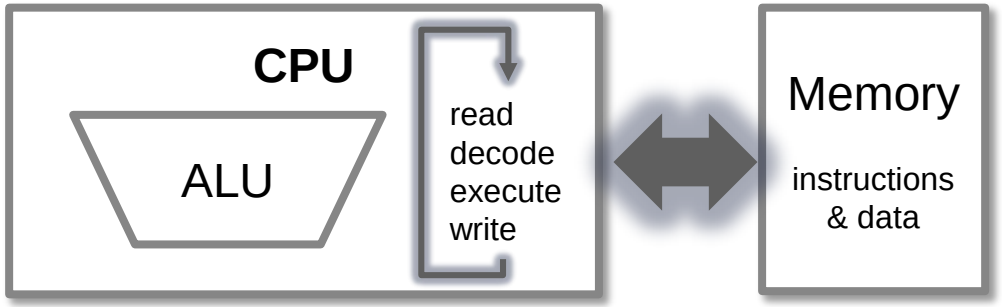
XILINX

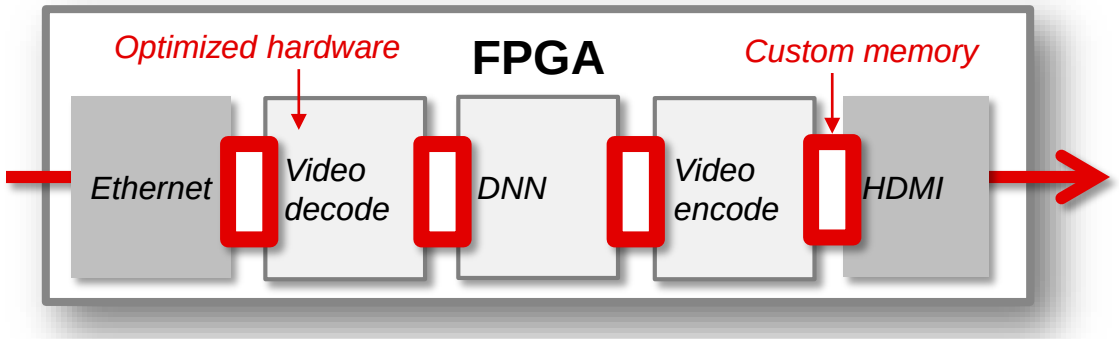
Xilinx platform introduction

Introduction to Vitis

Adaptive Compute Advantage

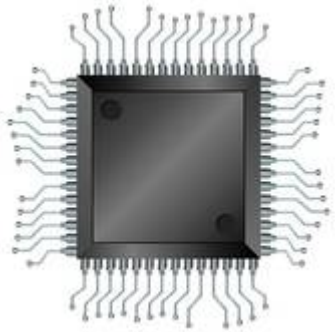




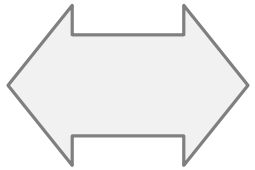


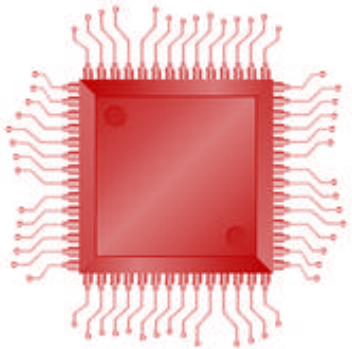
- Starting from an algorithm…
- CPU implementation
  - Sequential (Von Neumann) execution
  - Fixed architecture
- FPGA implementation
  - Flexible architecture
  - Custom memory hierarchy
  - Energy efficient computation

Xilinx accelerators



Host CPU





Xilinx FPGA

ALVEO™

FAST

Built for high throughput, ultra-low latency

Accelerate compute, networking, storage

ADAPTABLE

Deploy optimized domain-specific architectures

Adapt to changing algorithms

ACCESSIBLE

Deploy in the cloud or on-premises

Rich set of accelerated Applications

Xilinx Alveo Product Lineup

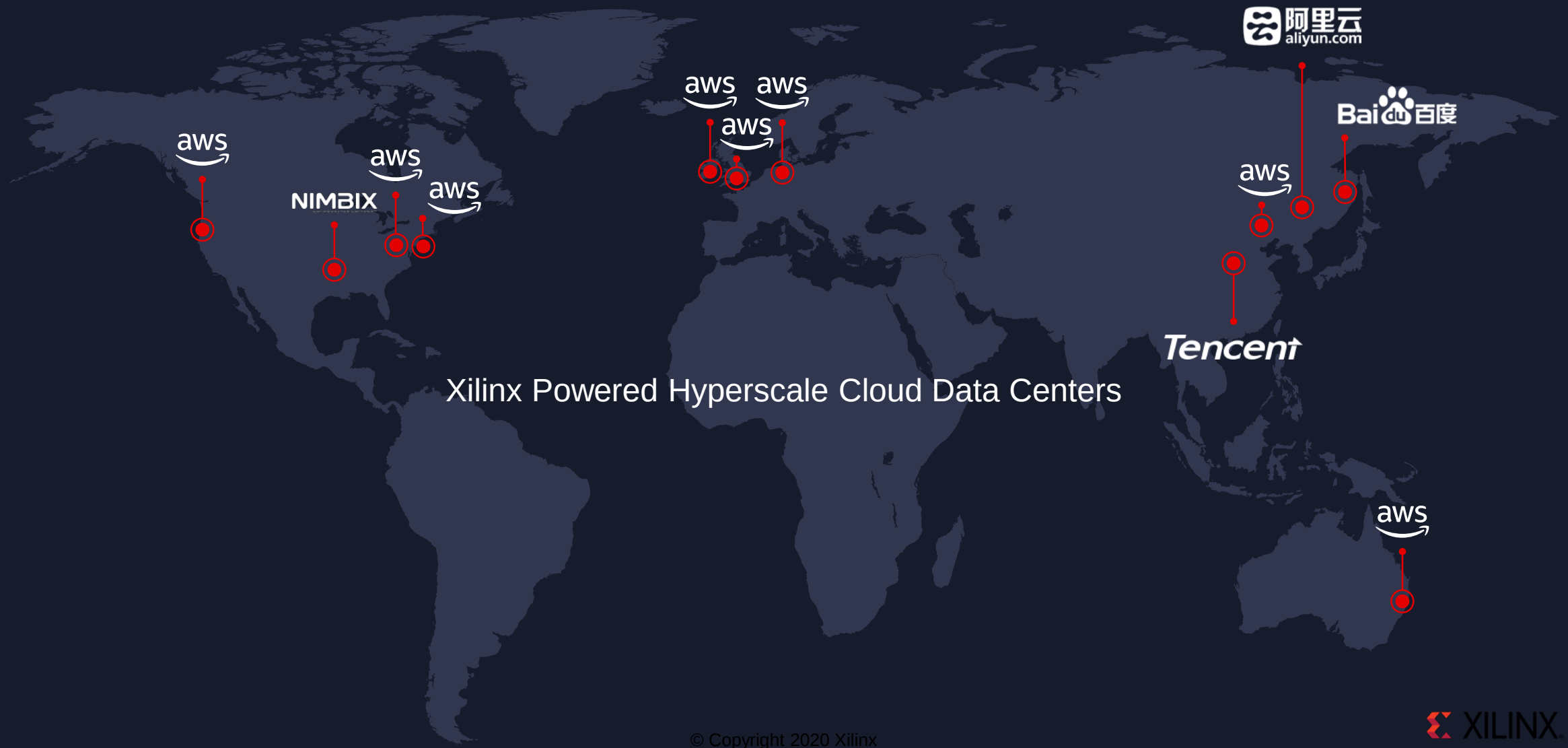
ALVEO U200	ALVEO U250	ALVEO U280	ALVEO U50
			
UltraScale+ Architecture	UltraScale+ Architecture	UltraScale+ Architecture	UltraScale+ Architecture
1,2M LUTs	1,7M LUTs	1,3M LUTs	872k LUTs
Dual slot, full height	Dual slot, full height	Dual slot, full height	Single slot, half height
64GB DDR, 77GB/sec	64GB DDR, 77GB/sec	8GB HBM2, 460GB/sec + 32GB DDR, 38GB/sec	8GB HBM2, 460GB/sec
PCIe Gen3	PCIe Gen3	PCIe Gen3, Gen4, CCIX	PCIe Gen3, Gen4, CCIX
2x QSFP 28 (100GbE)	2x QSFP 28 (100GbE)	2x QSFP 28 (100GbE)	1x QSFP 28 (100GbE)
< 225W	< 225W	< 225W	< 75W

Amazon EC2 F1 Instances

- EC2 instance type with up to 8 Virtex Ultrascale+ FPGAs
- Processors with up to 16 cores
- Connected through PCIe Gen3x16
- 64 GB DDR4 per FPGA

Model	#FPGA	Mem	SSD Storage	FPGA DDR4
f1.2xlarge	1	122 GB	470 GB	4x16 GB
f1.4xlarge	2	244 GB	940 GB	2 x 4x16 GB
f1.16xlarge	8	976 GB	8 x 470 GB	8 x 4x16 GB

Growing Cloud Availability



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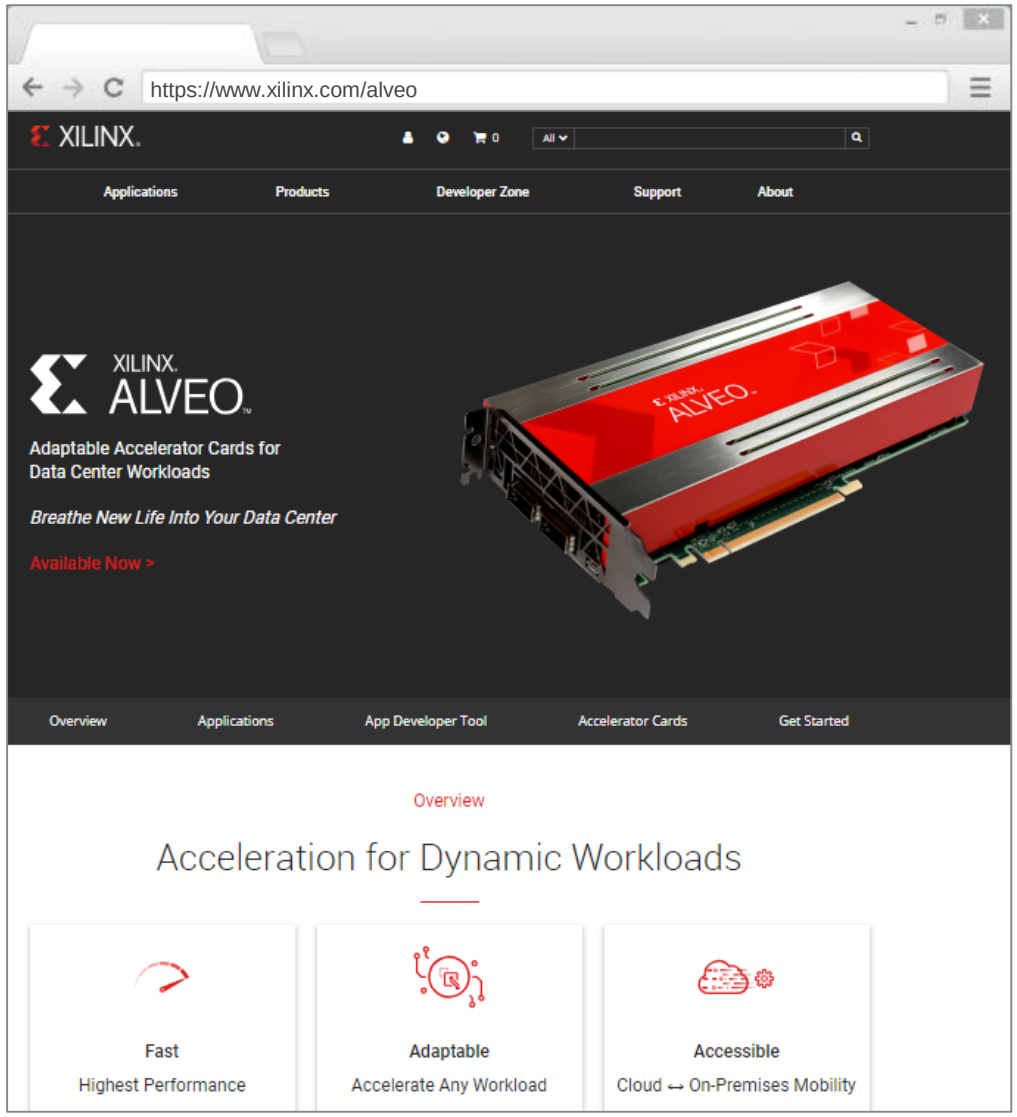
More Information Available on Xilinx.com



Xilinx.com
Product Brief
Product Selection Guide
Getting Started Guide
Data Sheet
ML Solution Brief
ABR Transcoding Solution Brief
Accelerating DNNs with Alveo White Paper
Applications Directory

Thank You