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
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**
- UltraScale+ Architecture
- 1,2M LUTs
- Dual slot, full height
- 64GB DDR, 77GB/sec
- PCIe Gen3
- 2x QSFP 28 (100GbE)
- < 225W

**ALVEO. U250**
- UltraScale+ Architecture
- 1,7M LUTs
- Dual slot, full height
- 64GB DDR, 77GB/sec
- PCIe Gen3
- 2x QSFP 28 (100GbE)
- < 225W

**ALVEO. U280**
- UltraScale+ Architecture
- 1,3M LUTs
- Dual slot, full height
- 8GB HBM2, 460GB/sec + 32GB DDR, 38GB/sec
- PCIe Gen3, Gen4, CCIX
- 2x QSFP 28 (100GbE)
- < 225W

**ALVEO. U50**
- UltraScale+ Architecture
- 872k LUTs
- Single slot, half height
- 8GB HBM2, 460GB/sec
- PCIe Gen3, Gen4, CCIX
- 1x QSFP 28 (100GbE)
- < 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

<table>
<thead>
<tr>
<th>Model</th>
<th>#FPGA</th>
<th>Mem</th>
<th>SSD Storage</th>
<th>FPGA DDR4</th>
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<td>8 x 470 GB</td>
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Thank You