



# Your Innovation Powered by Xilinx

## 赛灵思：创新的驱动力

Victor Peng | CEO 行政执行总裁

# Question 问题

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Developers  
Like You

像你一样的开发者

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# Rapid Innovation

## 快速创新

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**Building the Adaptable,  
Intelligent World**

**打造灵活应变，万物智能的世界**

# Strategy

## 战略



Data Center First  
数据中心优先



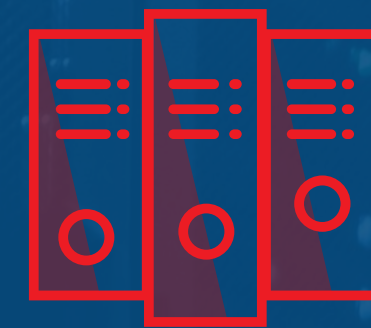
Accelerate Core Markets  
加速核心市场发展



Drive Adaptive Computing  
驱动自适应计算

# Strategy

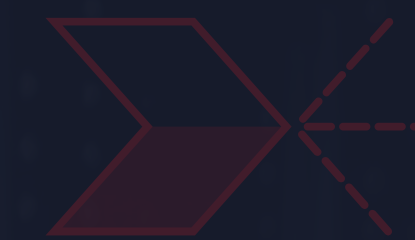
## 战略



Data Center First  
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Accelerate Core Markets  
加速核心市场发展

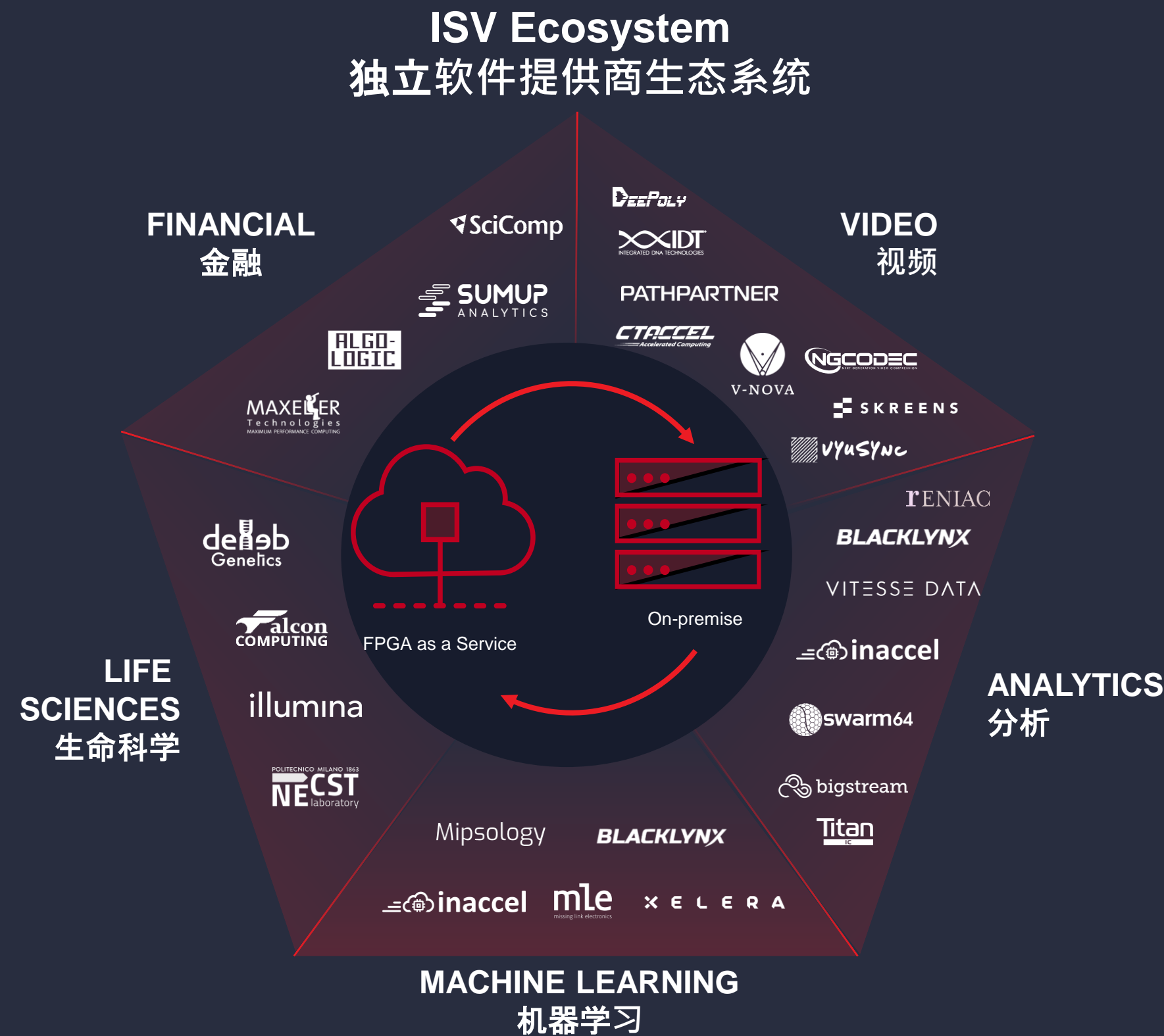


Drive Adaptive Computing  
驱动自适应计算



# Data Center Ecosystem Growth

## 数据中心生态系统发展壮大



**7517**

Companies and Academia  
企业与学术单位

**834**

Accelerator Program  
加速器项目

**95**

Published Apps  
已发布的应用

*inspur* | XILINX®

# 携手加速数据中心创新

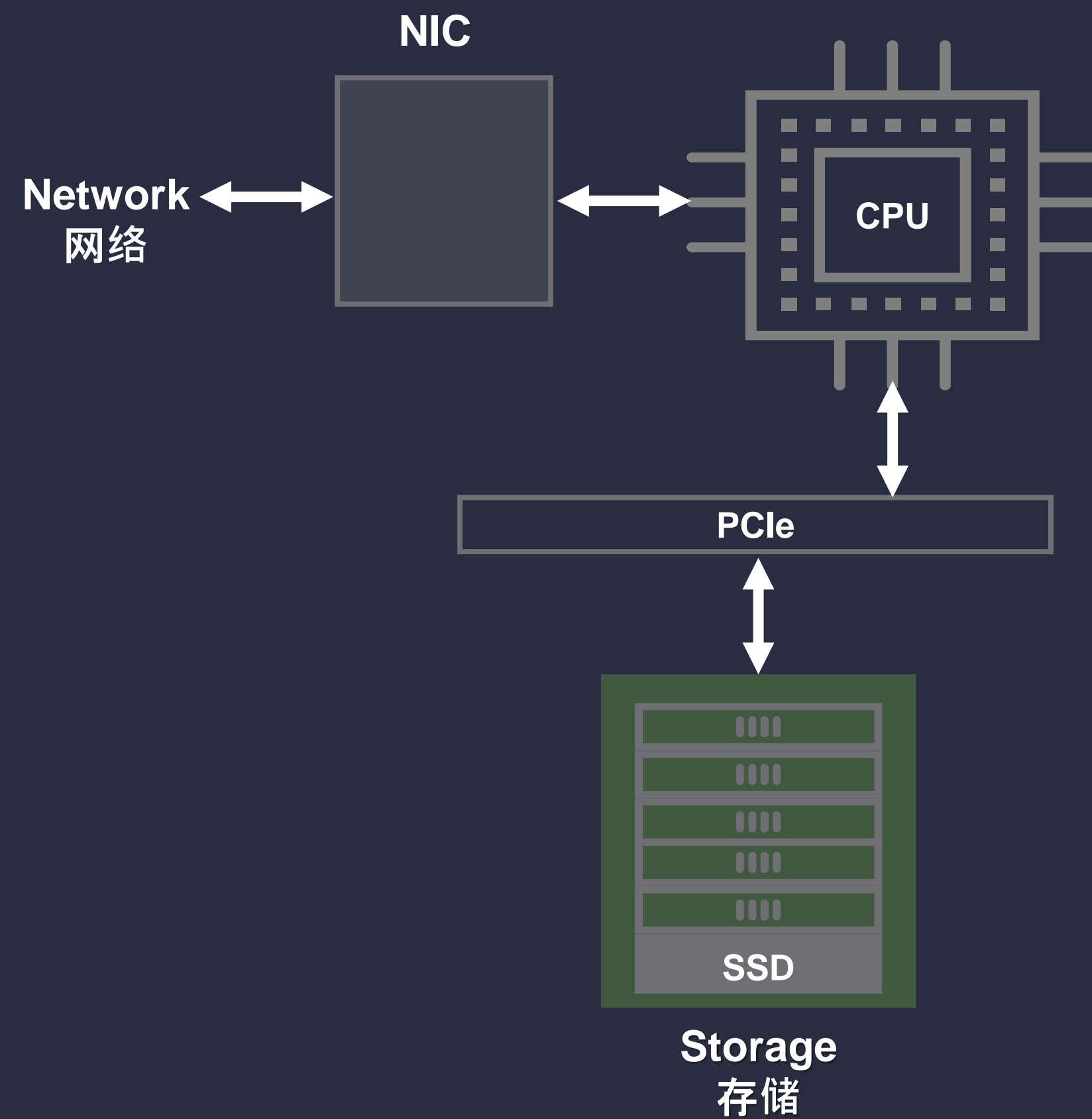
Peter Peng 彭震

浪潮信息 CEO

# Xilinx in Compute Acceleration

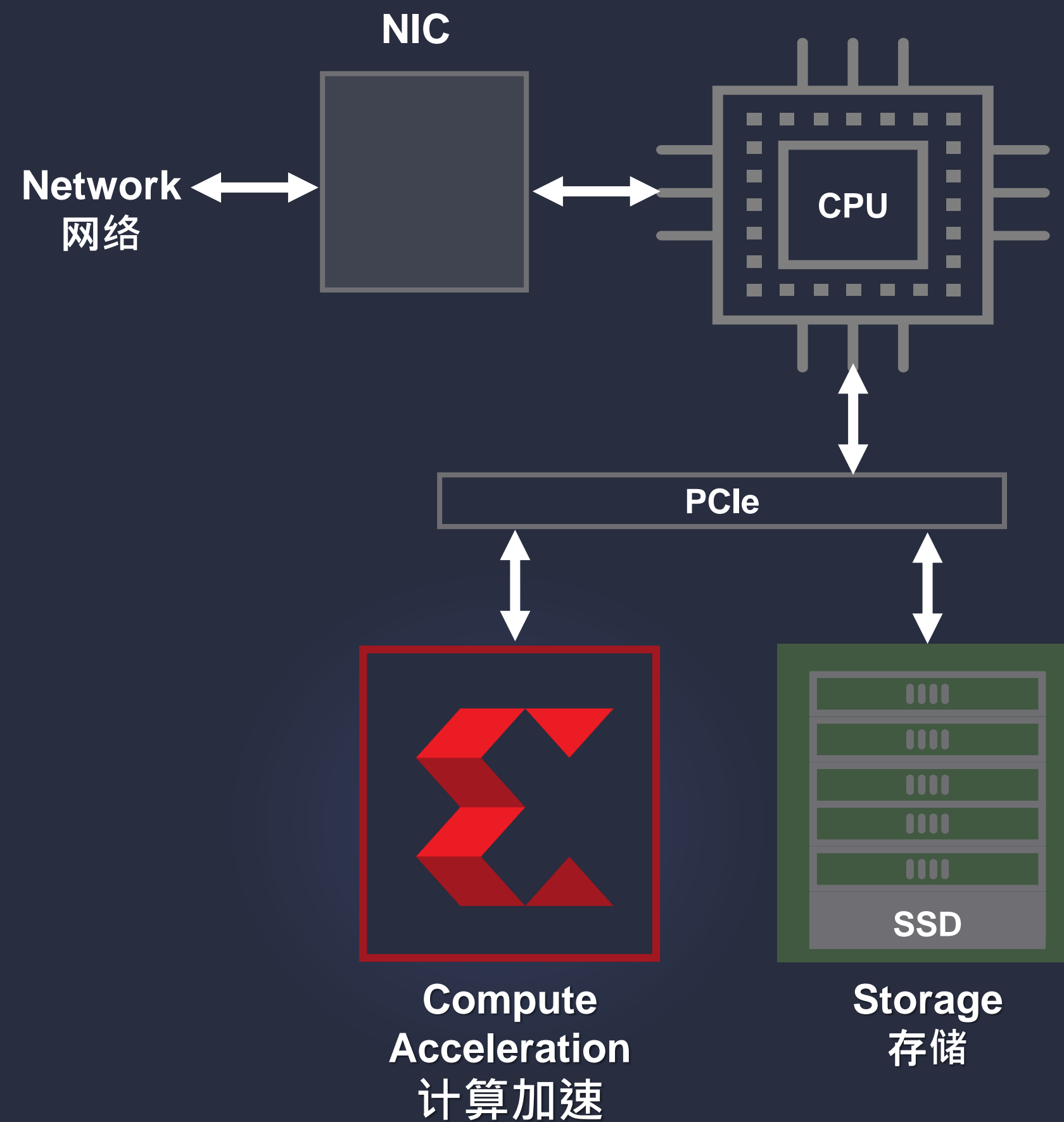
## 赛灵思计算加速

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# Xilinx in Compute Acceleration

## 赛灵思计算加速



illumina

Genomic Data Analytics  
基因组数据分析



CPU  
FPGA

1x

90x

Performance  
性能



Online Video Processing  
在线视频处理



CPU  
FPGA

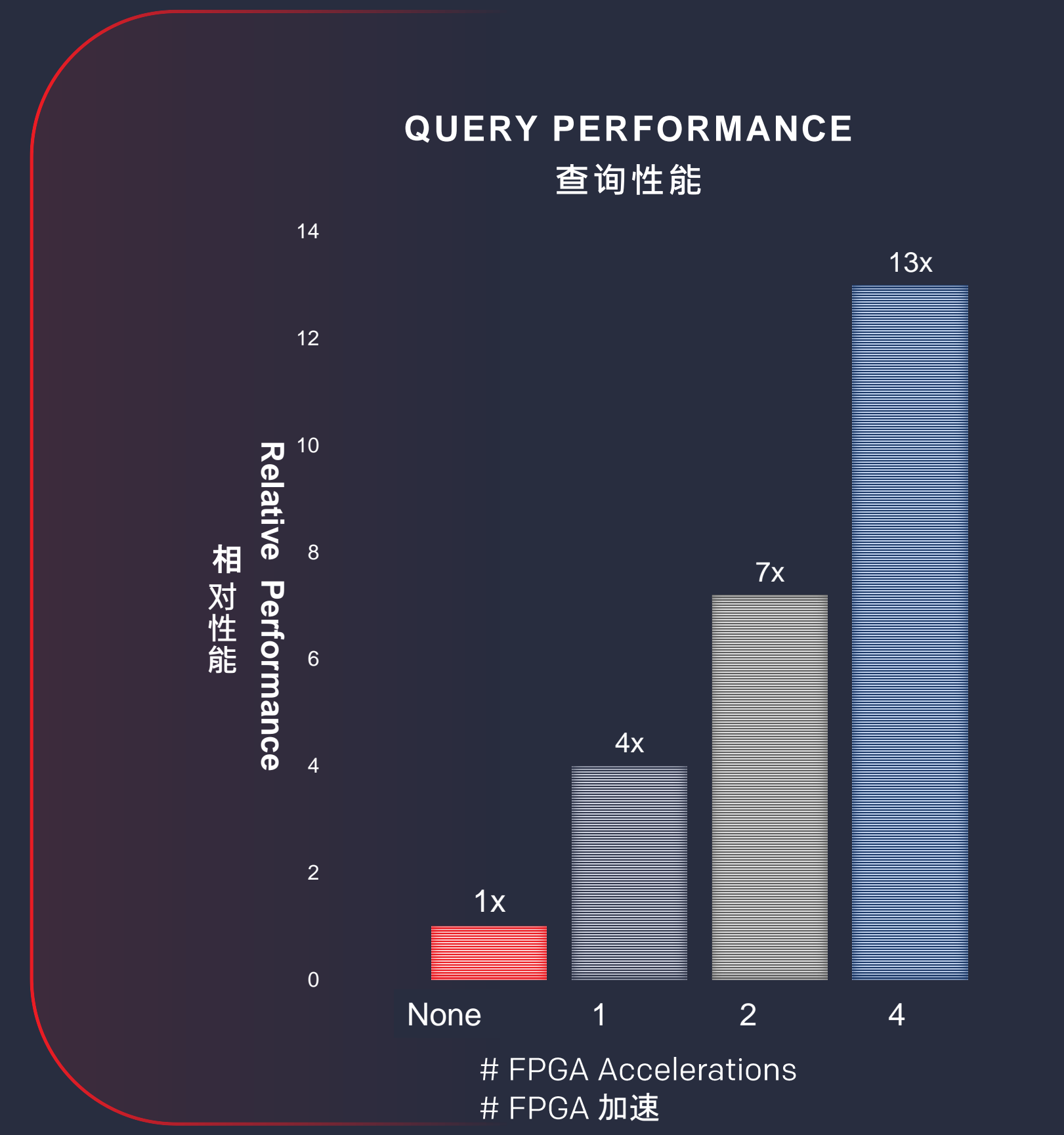
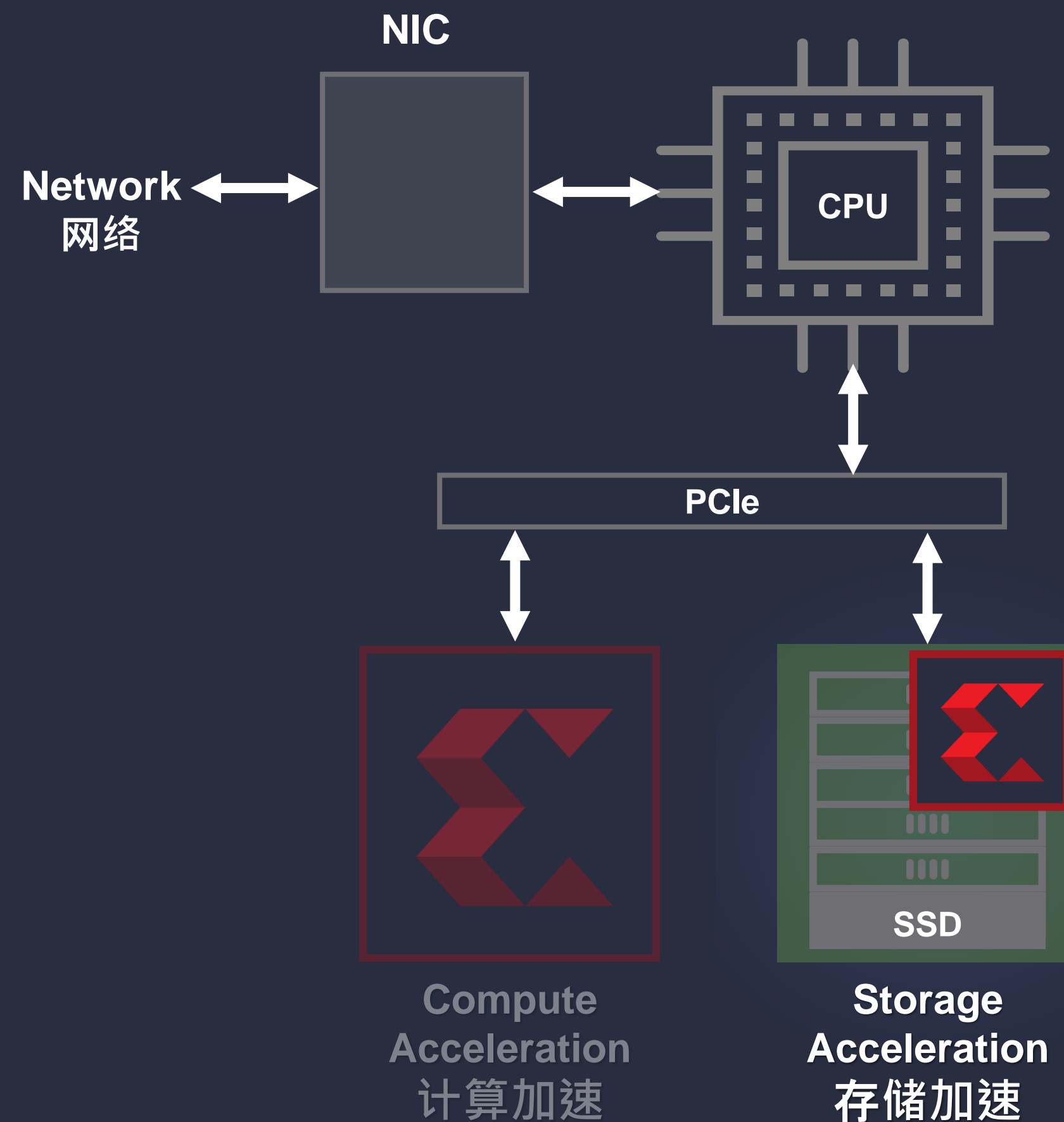
1x

33x

Performance/Watt/Cost  
每瓦性能成本

# Xilinx in Storage Acceleration

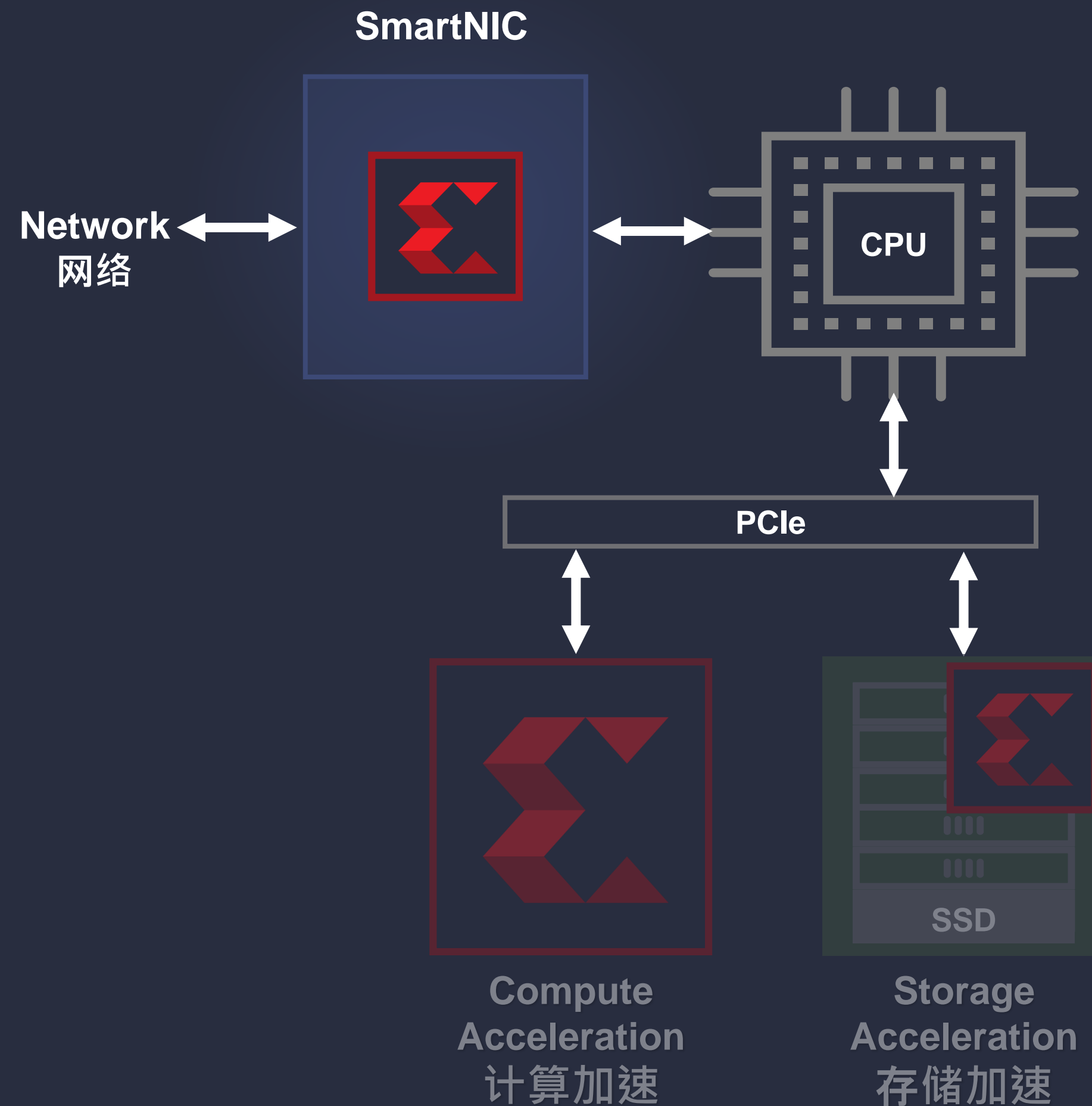
## 赛灵思存储加速



Server: Dual Socket Xeon E5-2697 (24 Cores) - Data-Plane: ~20 Mpps - # Cores Used: 10

# Xilinx in Network Acceleration

## 赛灵思网络加速



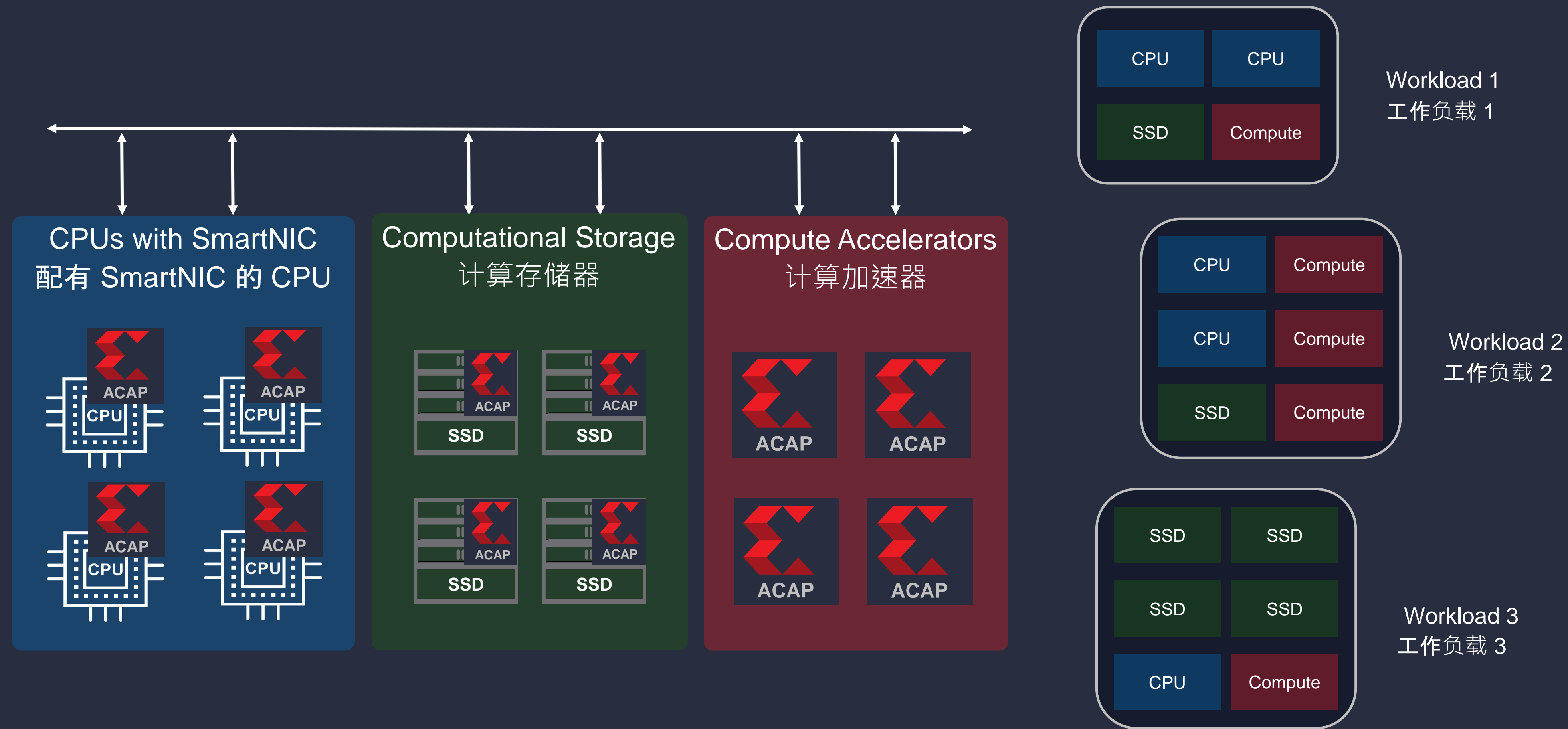
**1.5x**  
CPU Acceleration  
CPU 加速

**3-6X**  
Packet Processing  
Throughput  
包处理吞吐量

# Data Center Future: Distributed Adaptive Computing

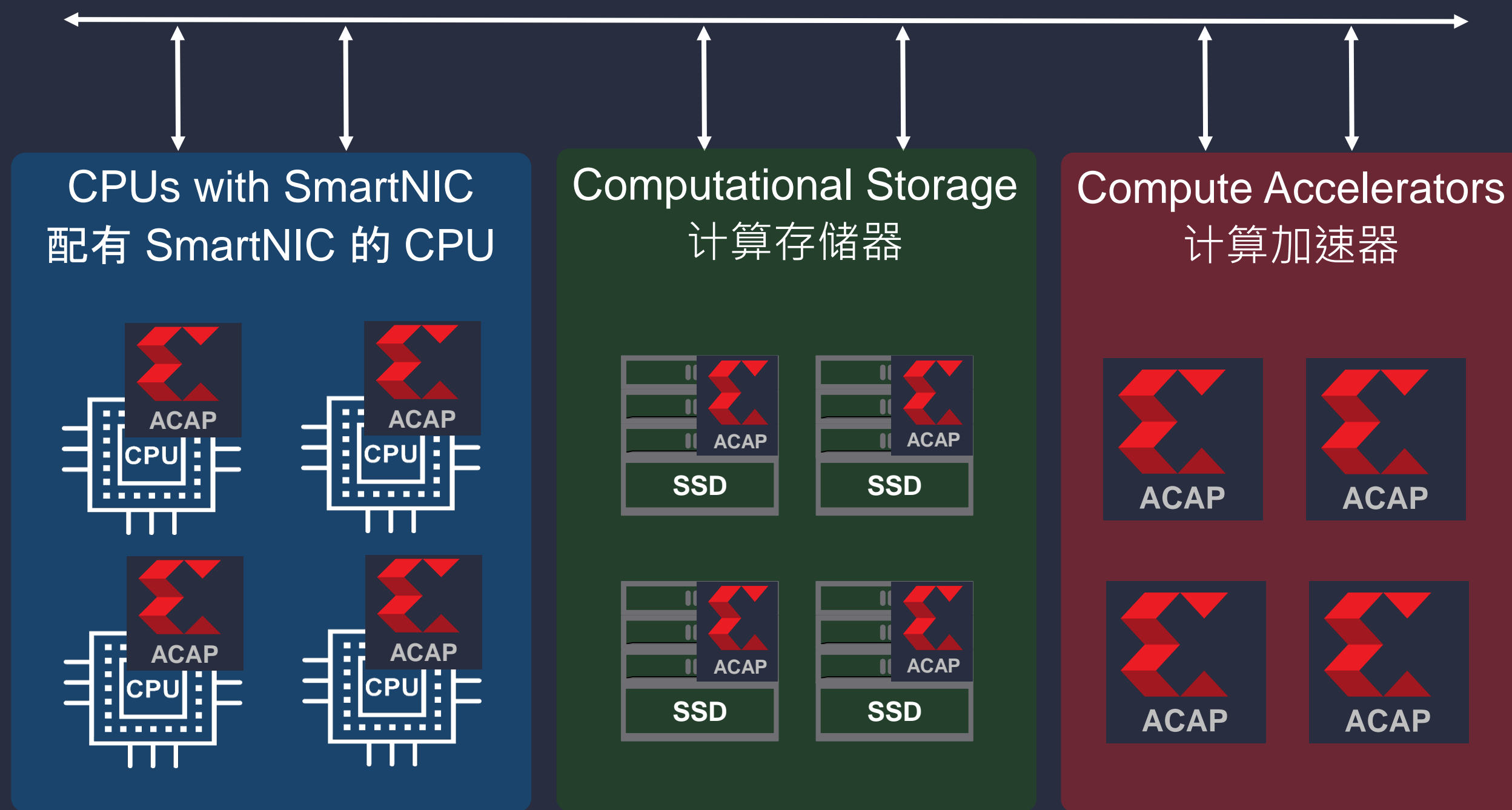
数据中心未来：分布式自适应计算

Disaggregated & Composable  
可分解和可组合



# Key Values of Distributed Adaptive Computing

分布式自适应计算  
核心价值



Low Total  
Cost of Ownership  
更低的总拥有成本  
(TCO)



High Performance  
with Low Latency  
高性能与低时延



Customization & Rapid  
Innovation without  
New Silicon  
无需更新芯片即可  
定制化和快速创新



# Strategy

## 战略



Accelerate Core Markets  
加速核心市场发展



Data Center First  
数据中心优先



Drive Adaptive Computing  
驱动自适应计算

# Accelerating Core Markets

## 加速核心市场发展

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**Industrial & Vision**  
工业与视觉



**Pro AV & Broadcast**  
专业 A/V 与广播



**Automotive**  
汽车



**Consumer**  
消费领域



**Healthcare &  
Sciences**  
医疗与科学



**Test & Measurement,  
and Emulation**  
测试测量与仿真



**Wired  
Communications**  
有线通信

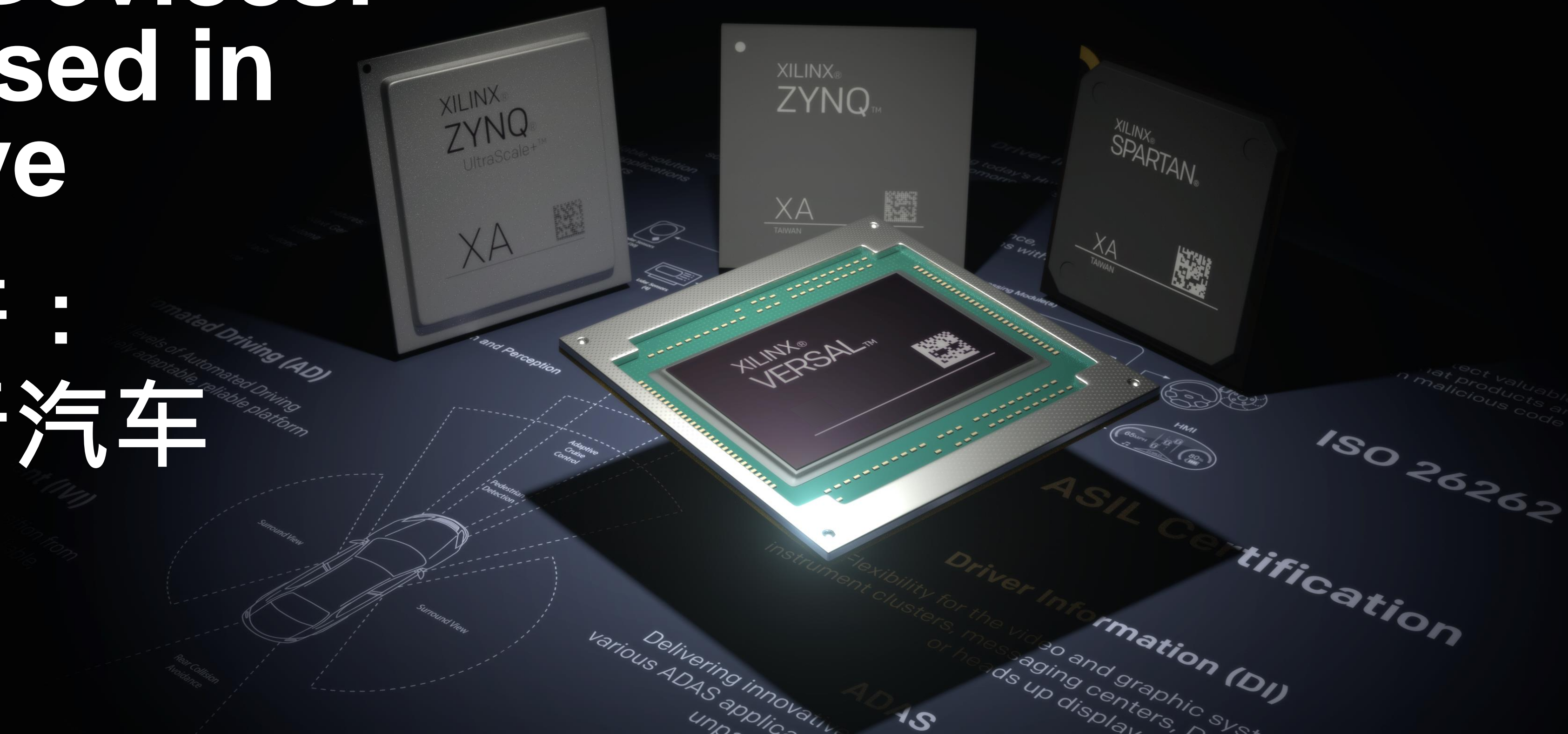


**Wireless  
Communications**  
无线通信



# Adaptive Devices: Broadly Used in Automotive

## 自适应器件： 广泛应用于汽车



**170M+ Devices Shipped**

器件出货量达 1.7亿片以上

**2018**

29 Makes & 111 Models 29 个品牌 & 111 款车型

**2017**

26 Makes & 96 Models 26 个品牌 & 96 款车型

**2016**

23 Makes & 85 Models 23 个品牌 & 85 款车型

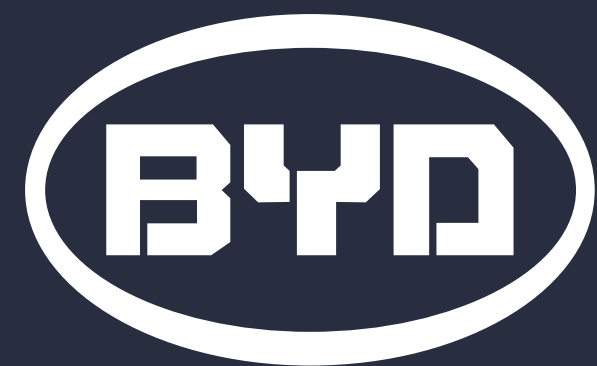
**2015**

19 Makes & 64 Models 19 个品牌 & 64 款车型

**2014**

14 Makes & 29 Models 14 个品牌 & 29 款车型

apollo



DAIMLER

MAGNA



pony.ai

# Enabling Automated Driving 实现自动驾驶

LiDAR 激光雷达

Display Mirror 显示镜

Forward Camera 前置摄像头

In-Cabin Monitoring Camera 车内监控摄像头

Surround View Rear Camera 环视后置摄像头

Domain Controller 域控制器

Surround View Side Camera 环视侧面摄像头

Surround View Front Camera 环视前置摄像头

RADAR 雷达



ZU2



ZU3



ZU4



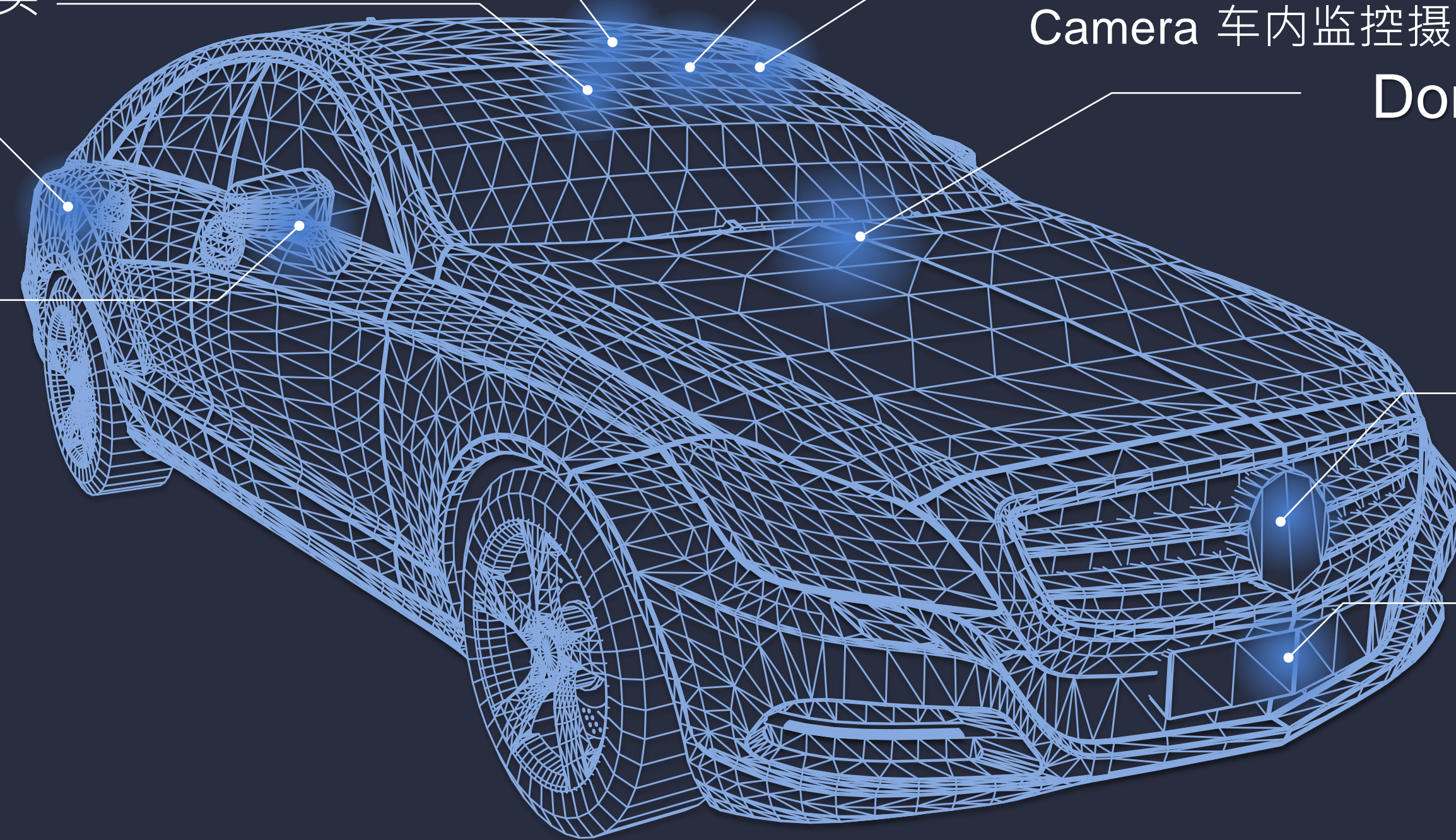
ZU5



ZU7



ZU11



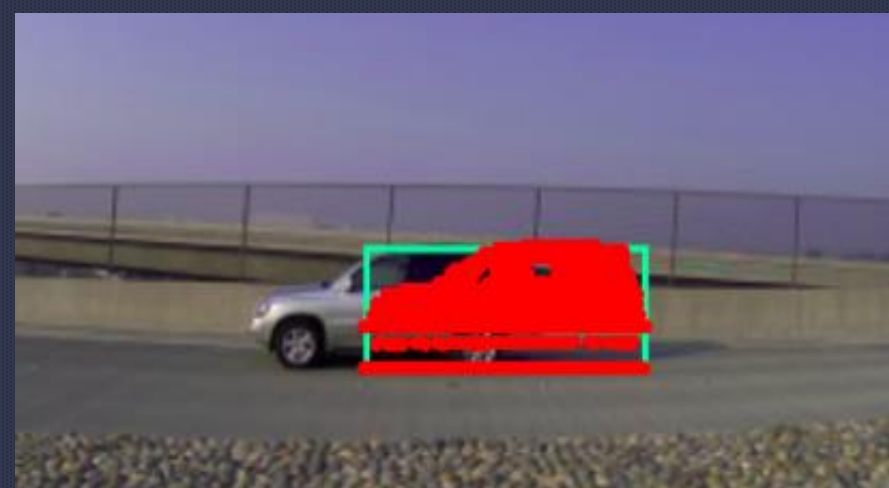
Does not represent actual vehicle architecture

# Automated Driving Example: Pony.ai

## 自动驾驶示例：小马智行（Pony.ai）



Without FPGA Sensor Fusion  
没有 FPGA 传感器融合

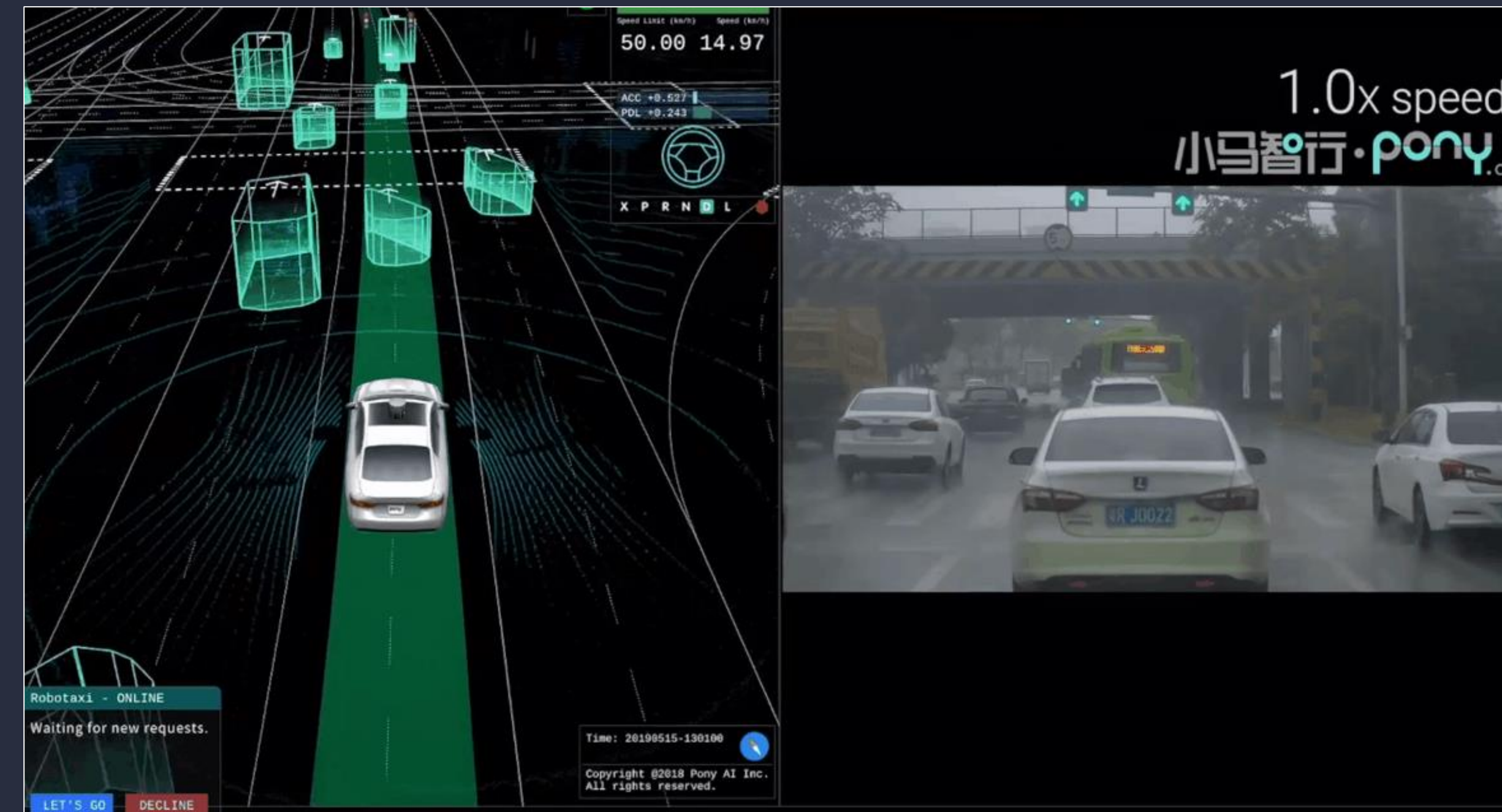


**X Sensor Fusion Output Discrepancy  
by Nearly 1/2 Car Length**  
传感器融合输出差异接近 1/2 车长

With **Xilinx FPGA** Sensor Fusion  
有赛灵思 **FPGA** 传感器融合



✓ **No Discrepancy in  
Sensor Fusion Output**  
✓ 传感器输出完全吻合



# Strategy

## 战略



Data Center First  
数据中心优先



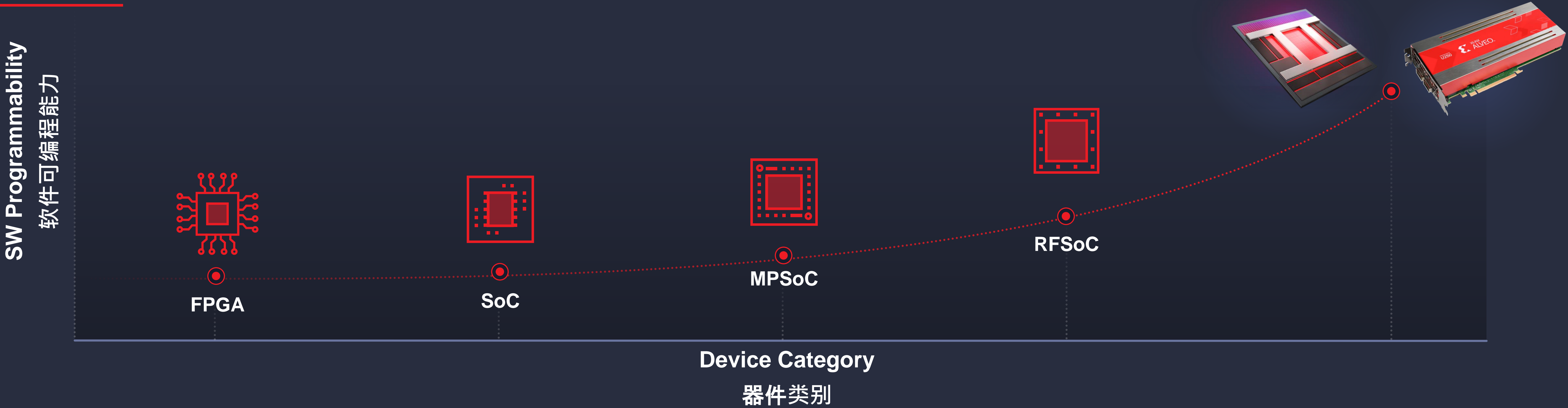
Accelerate Core Markets  
加速核心市场发展



Drive Adaptive Computing  
驱动灵活应变的计算

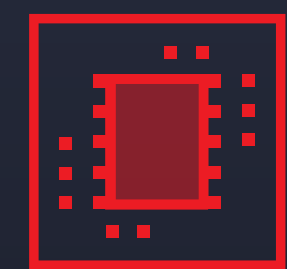
# Platform Transformation – Hardware

## 平台转型之路 – 硬件

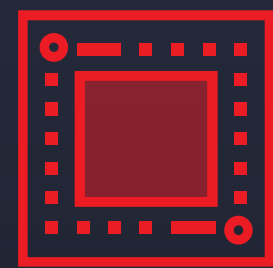


# Platform Transformation – Hardware

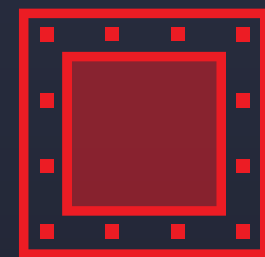
## 平台转型之路 – 硬件



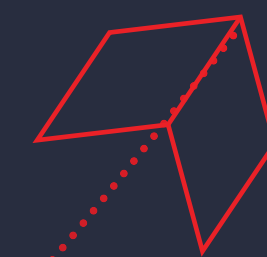
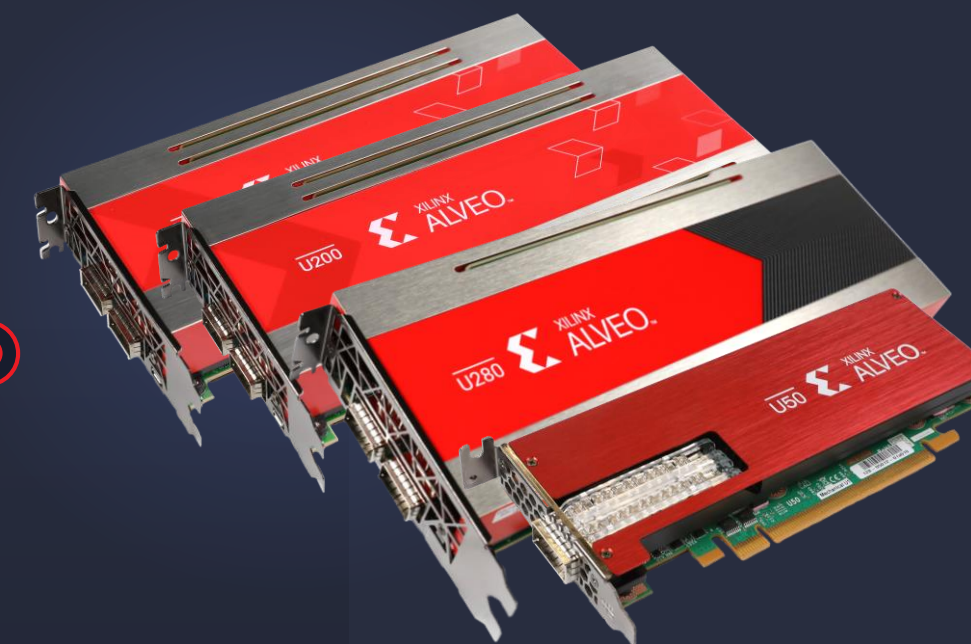
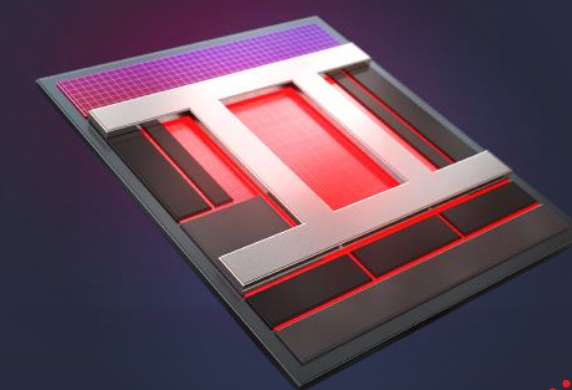
SoC



MPSoC

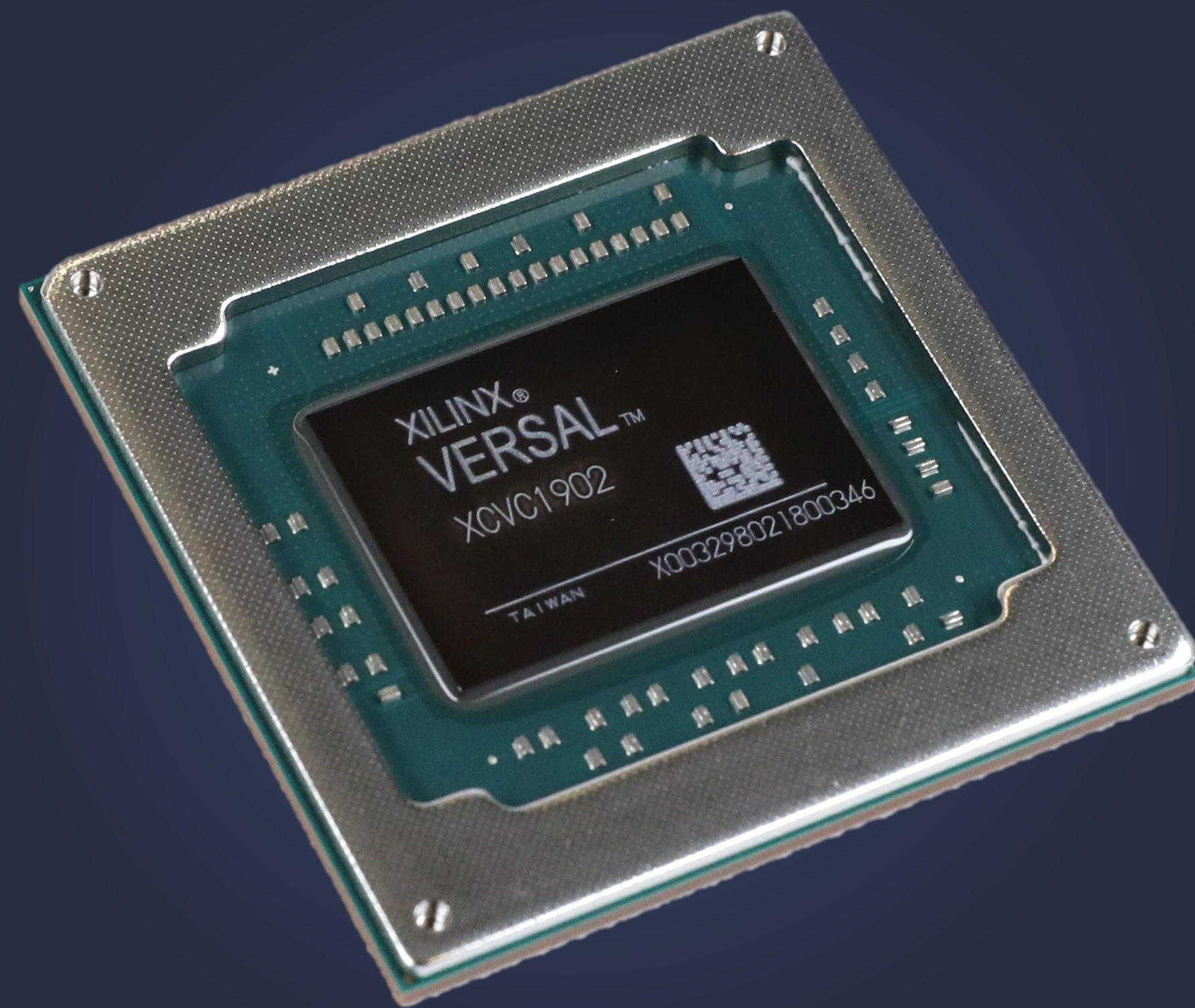


RFSoc

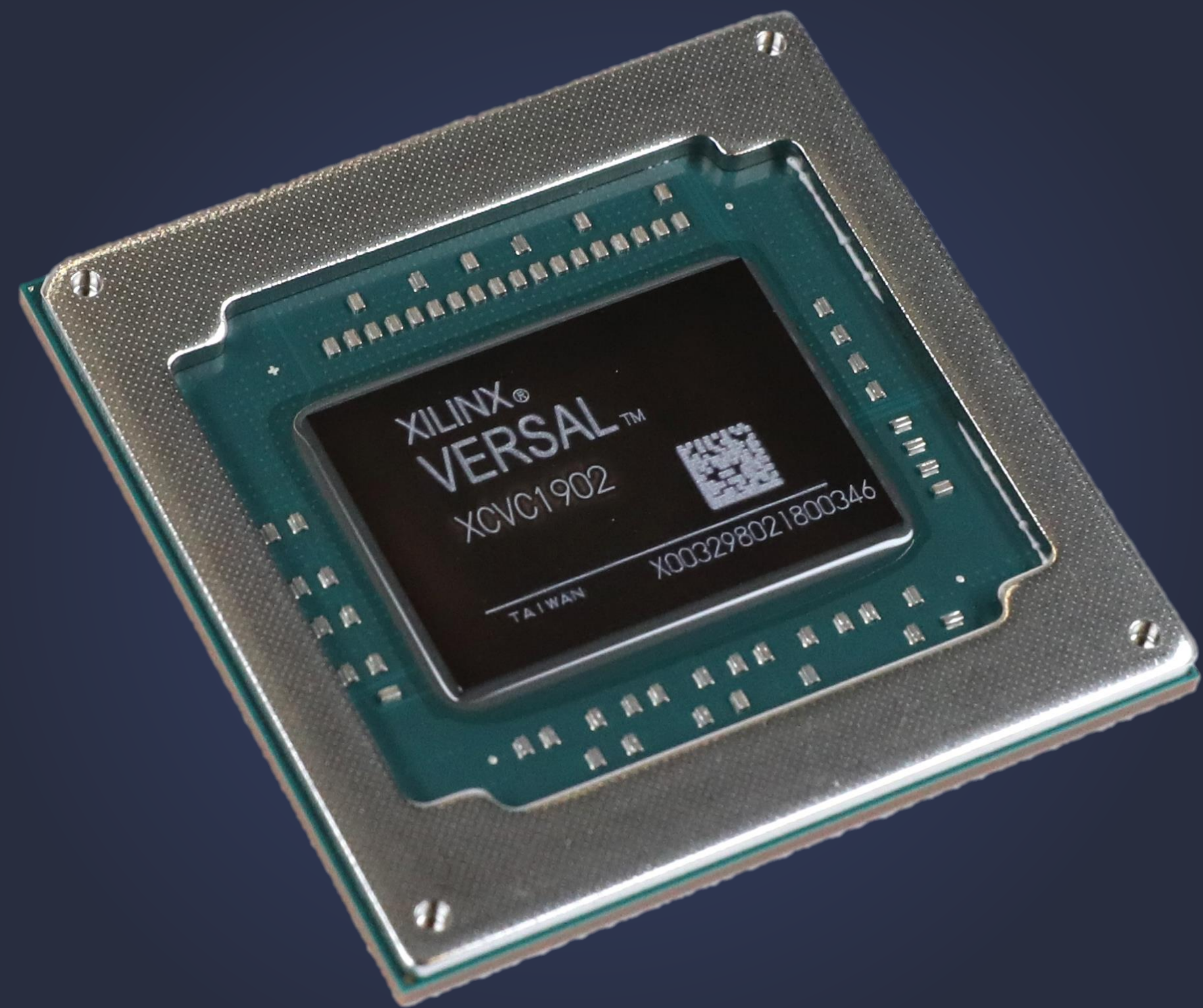


Continuing  
Transformation  
持续转型





XILINX®  
VERSAL™



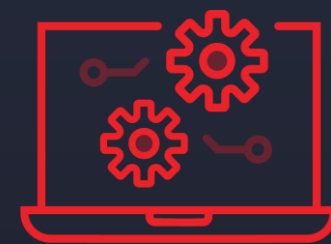
XILINX®  
VERSAL™



# Platform Transformation – Software

## 平台转型之路 – 软件

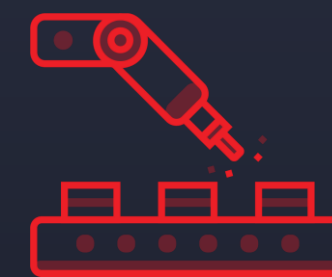
Productivity  
生产力



Vivado



OS & Firmware SDK  
操作系统和固件 SDK



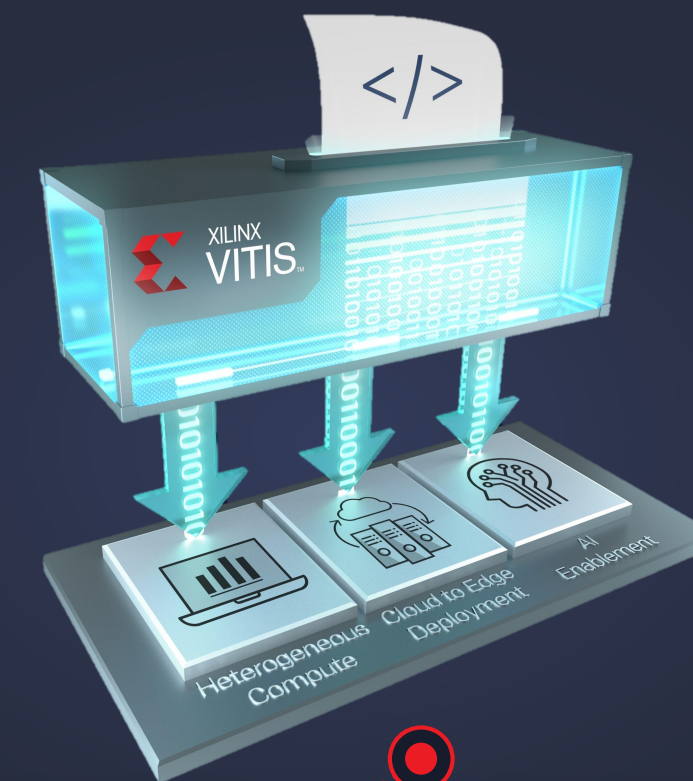
SDSoC, Embedded Applications  
SDSoC、嵌入式应用



SDAccel, Data Center Platform (FaaS, Alveo)  
SDAccel、数据中心平台 (FaaS、Alveo)

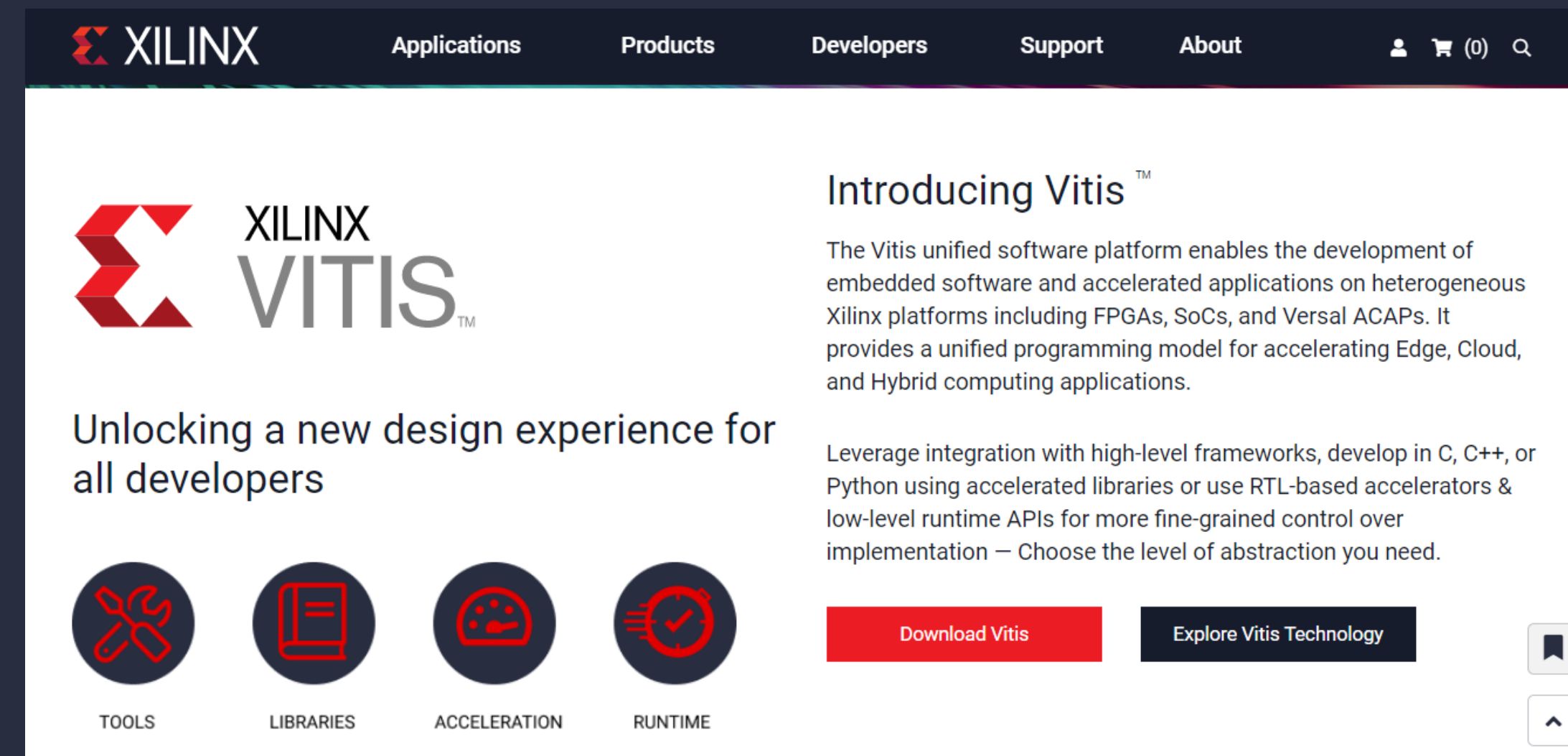


AI Inference Acceleration  
AI 推断加速



# Unified Software Platform

## 统一软件平台



The screenshot shows the Xilinx Vitis website landing page. At the top, there is a navigation bar with the Xilinx logo and links for Applications, Products, Developers, Support, and About. Below the navigation bar, the main content area features the Xilinx Vitis logo on the left and a text block on the right. The text block introduces Vitis as a unified software platform for developing embedded software and accelerated applications on heterogeneous Xilinx platforms. It highlights a unified programming model for accelerating Edge, Cloud, and Hybrid computing applications. Below the text, there are four circular icons representing Tools, Libraries, Acceleration, and Runtime. At the bottom of the text block, there are two buttons: 'Download Vitis' and 'Explore Vitis Technology'.

XILINX Applications Products Developers Support About

### XILINX VITIS™

Unlocking a new design experience for all developers

**Introducing Vitis™**

The Vitis unified software platform enables the development of embedded software and accelerated applications on heterogeneous Xilinx platforms including FPGAs, SoCs, and Versal ACAPs. It provides a unified programming model for accelerating Edge, Cloud, and Hybrid computing applications.

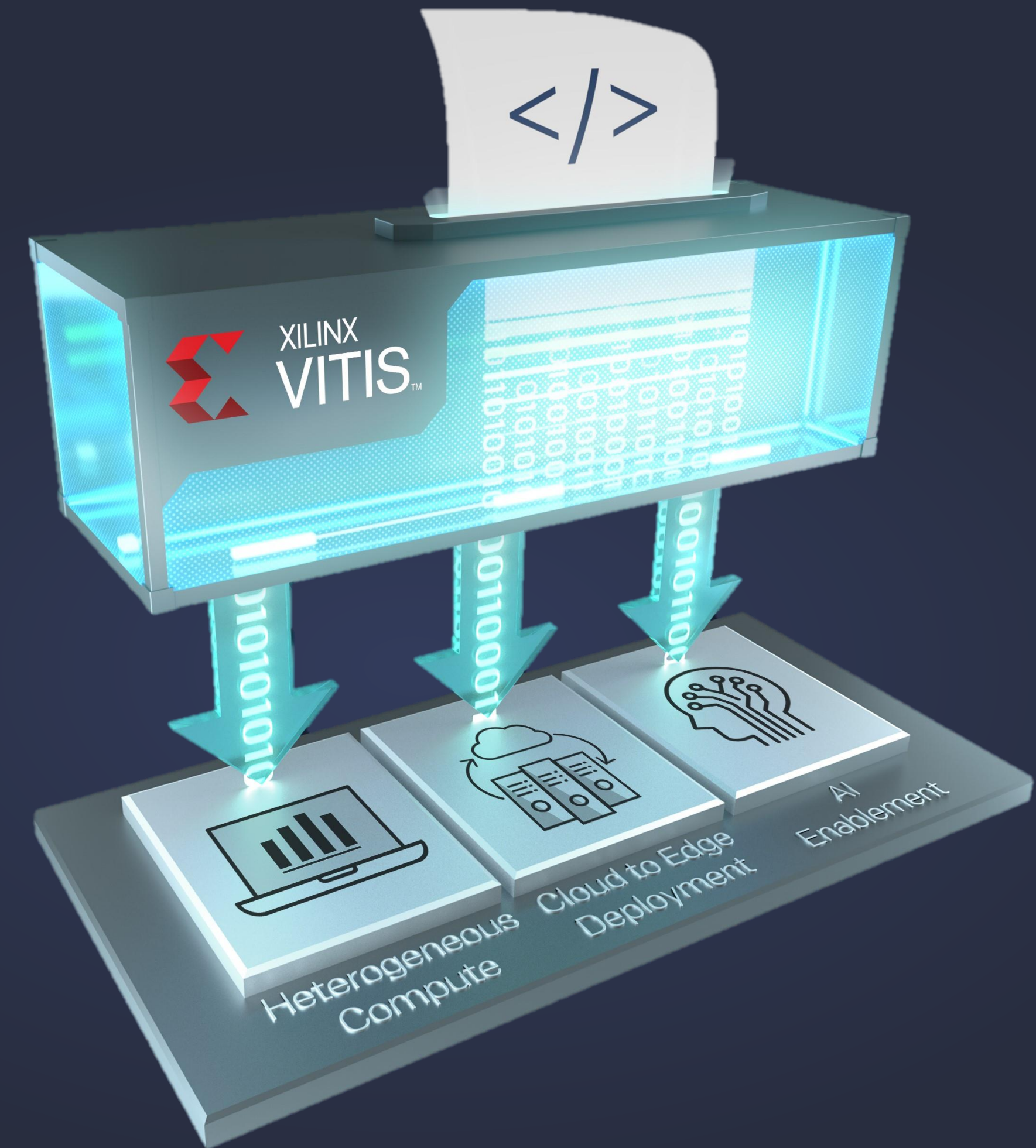
Leverage integration with high-level frameworks, develop in C, C++, or Python using accelerated libraries or use RTL-based accelerators & low-level runtime APIs for more fine-grained control over implementation – Choose the level of abstraction you need.

[Download Vitis](#) [Explore Vitis Technology](#)

TOOLS LIBRARIES ACCELERATION RUNTIME

Download for Free  
Today

现已开放免费下载



# Platform Transformation Momentum

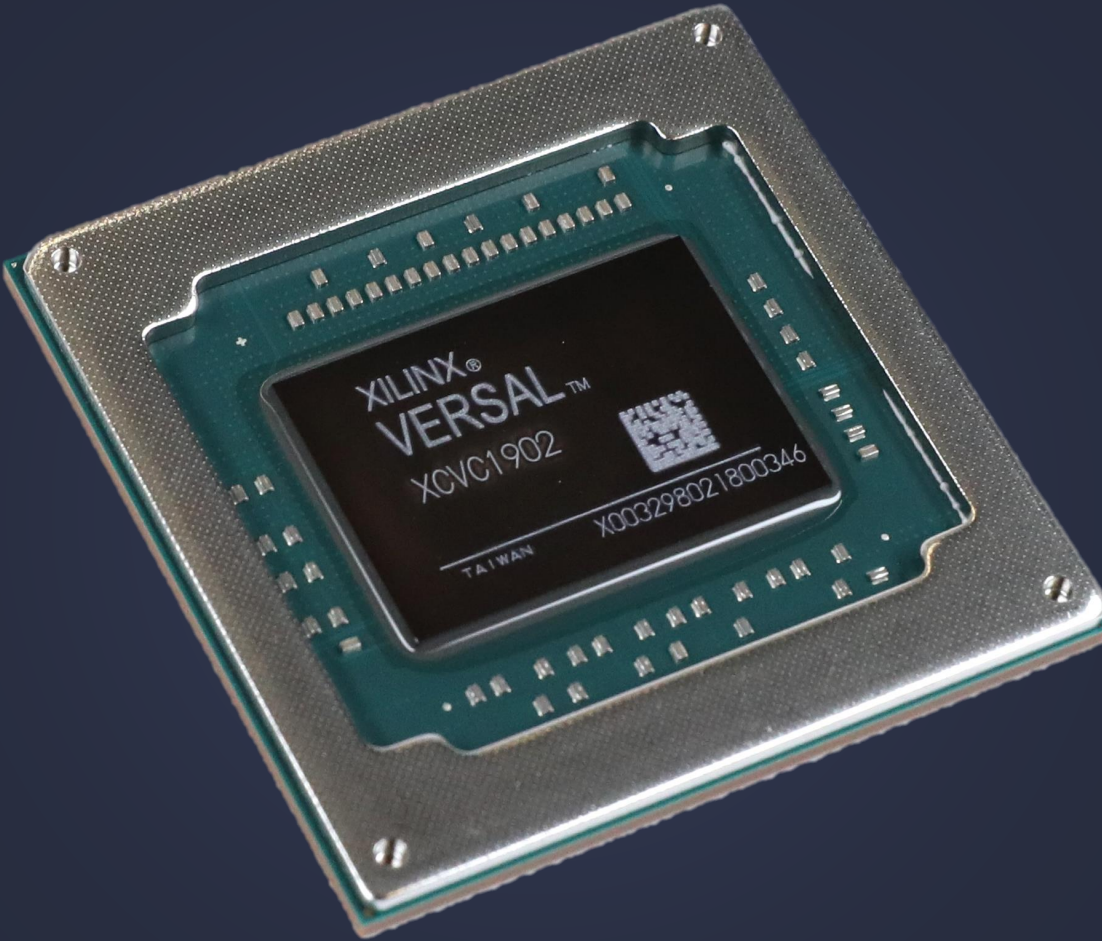
## 平台转型之路取得重大进展

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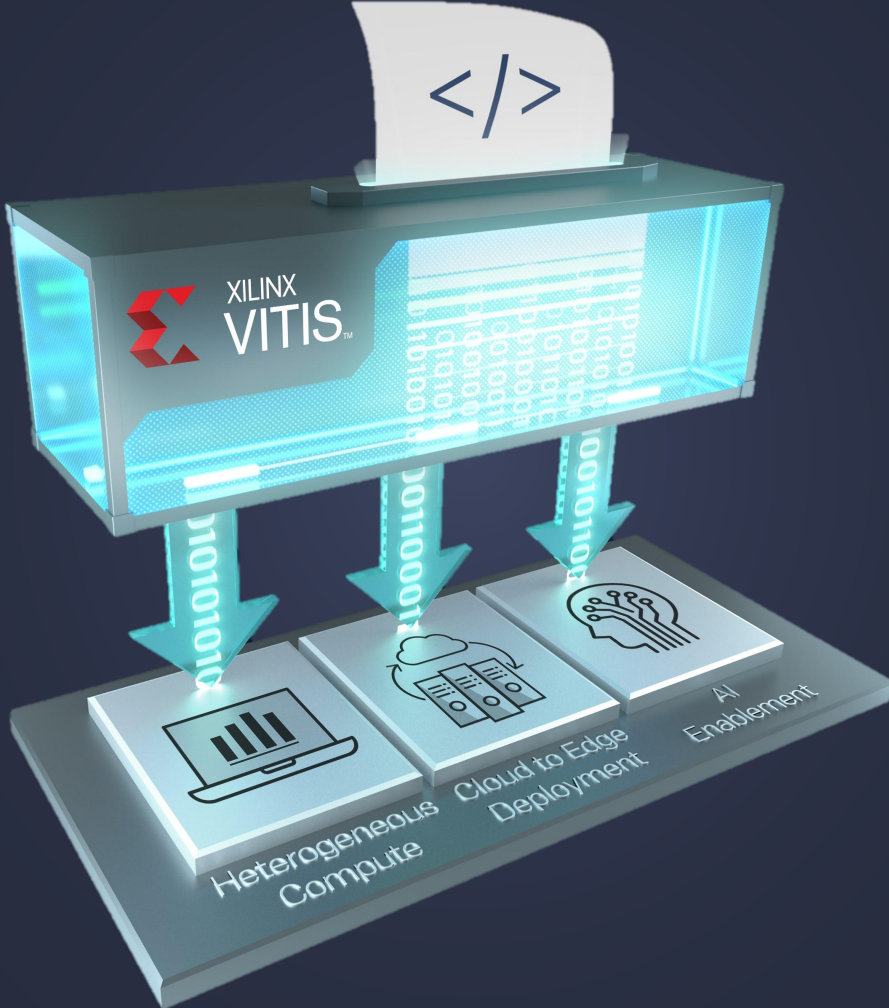
Alveo is Here  
Alveo 面世



Versal is Here  
Versal 面世



Vitis is Here  
Vitis 面世



# Xilinx Recognized as a Global Technology Leader

## 赛灵思已成为公认的全球技术领导者

# 17 of Fortune Magazine's  
"Future 50" list  
排名财富杂志“未来 50 强”第 17 位

*"Well-positioned to serve growing markets including A.I. and 5G technology.. (在服务持续性增长的市场如人工智能和 5G 技术上占据有利地位)"*



## Top 15 World-Leading Science/Technology Achievements

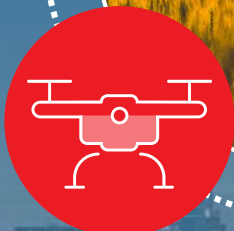
### 世界互联网 15 大领先科技成果



Awarded at the 6th World Internet Conference, Wuzhen, China  
获誉于第六届中国乌镇互联网大会

# Empowering the Future

## 赋能未来





**Building the Adaptable,  
Intelligent World**  
**打造灵活应变，万物智能的世界**