BRING REAL-TIME AI TO THE EDGE
NVIDIA

GRAPHICS
- Gaming
- Design
- CGI

AI
- AI Infrastructure
- AV & Robotics
- AI for Industries

Various images and logos related to NVIDIA's offerings in graphics and AI.
THE MOST POWERFUL TECHNOLOGY
FORCE OF OUR TIME
BIG DATA

NVIDIA DGX/HGX

NGC

NVIDIA AI

CUDF
CUDNN
CUIO
CUGRAPHP
GPU DIRECT
CUML
RAPIDS

NVIDIA DGX/HGX
MELLANOX
NVIDIA EGX OPPORTUNITY ACROSS INDUSTRIES

IOT

IOT devices projected to grow to >150B by 2025, >1T by 2035

AI

By 2030, AI has a potential total economic impact of up to $17T/year

5G

5G will deliver 1000X better bandwidth and 10X lower latency than 4G
NVIDIA EGX OPPORTUNITY ACROSS INDUSTRIES

CUDA-X

NVIDIA EGX STACK
- Kubernetes
- Networking
- Storage
- Security

NVIDIA EGX SERVER

NGC

Third-Party ISVs

- 40M Miles of road
- 570M Farms
- 2M Factories
- 10T Miles driven per year
- 13M Stores
- 5M Call center agents

NVIDIA EGX OPPORTUNITY ACROSS INDUSTRIES
AI RETAIL OPPORTUNITY
AI Will Triple Retailers’ Profits

- **$26T**
  - Global Retail Sales

- **2%**
  - AVG Retailers
  - Net Profit Margin

- **3X**
  - Increase in Profit
  - with AI*

- **$1T**
  - Increase in Annual
  - Profit

*McKinsey Report: Automation in Retail
WALMART ADOPTS EGX FOR SMART STORE OF THE FUTURE

• Track product inventory & availability
• Detect stock-out and replenishment
• Open new checkout lanes
• Ensure product freshness
• Retrieve shopping carts
LOGISTICS TOP COMPANIES ADOPT EGX

Package Life Cycle Tracking System

Transportation Scheduling & Management

Loading Dock Analytics
HOW EGX BRINGS AI TO THE EDGE

IOT Sensors -> Enterprise edge

AI Applications
- CUDA-X
- EGX Stack

High Performance Edge Servers with NVIDIA

High amounts of Real-time data

Cloud
- Authenticate
- Deploy
- Monitor
- Scale
- Manage

Secure & Low Bandwidth
EGX PLATFORM SIMPLIFIES MANAGEMENT
ONE IMAGE FOR ALL WORKER NODES
Consistent management across GPU & CPU Nodes with NVIDIA EGX Stack

NVIDIA GPU Operator
Cloud Native Containerized GPU Enablement via Helm installation

NVIDIA GPU Operator ➔ HELM ➔ NVIDIA Driver ➔ NVIDIA Container Runtime ➔ NVIDIA Device Plugin ➔ NVIDIA Monitoring

Kubernetes
Linux Distribution
Unified Node Deployment
In addition to EGX running at the enterprise edge, EGX can power the 5G mobile edge
LEGACY APPROACH TO WIRELESS

Dedicated hardware for every function

VOICE

DATA

4G RAN

DEDICATED FIXED-FUNCTION SYSTEMS
“As a technology leader, we embrace openness and new platforms where we can continue to innovate and push boundaries to provide our customers with the best possible solutions. With NVIDIA we will jointly look at bringing alternatives to market for virtualizing the complete radio access network.”

Fredrik Jejdling, Executive Vice President and Head of Networks, Ericsson
RED HAT & NVIDIA EXPAND PARTNERSHIP

Bringing high performance software defined 5G RAN to mobile edge

“The next generation of mobile networks won’t be defined by inflexible, proprietary solutions — it will be founded in open cloud-native technologies. As a leader in building open, innovative telecommunications infrastructure, we see a tremendous advantage to running standardized software at the telco edge, helping to enable a range of new workloads via dynamically scalable services.”

Jim Whitehurst, CEO, Red Hat
5G CLOUD NATIVE MOBILE EDGE RUNS MANY WORKLOADS

**Workloads:**
- Voice
- Data
- AR/VR
- IoT
- AV

**5G vRAN**
- VNF
- AI/ML
- AR/VR
- Gaming

**Cloud Native**

**Off the Shelf Servers with GPUs (COTS)**