



SUCCESS STORY

Enabling Seamless Migration from NVIDIA to Qualcomm Edge AI

In a recent breakthrough for high-performance edge computing, our team successfully migrated a sophisticated traffic management application from an NVIDIA-based ecosystem to our Qualcomm-powered AIX-8000 platform. This transition allowed our partner to maintain their advanced AI capabilities while gaining significant advantages in power efficiency and edge processing performance.

The Challenge: Moving Beyond the NVIDIA Ecosystem

Our client had a robust intelligent traffic controlling system built on NVIDIA hardware but sought a more optimized solution for their specific market requirements. The goal was to transfer the Deployment environment from NVIDIA to our AIX-8000 and benefiting from Qualcomm®'s hardware acceleration

Our Solution: A Structured Two-Step Migration

We demonstrated a AI deployment at premium performance, namely the NPU delegation (HTP/GPU/CPU) via Qualcomm® Neural Network (QNN). This motivated our clients in converting their TensorRTs into TensorFlow LITEs.

1. Establishing the Foundation (Android OS BSP)

- **System Integration:** We successfully integrated the core Android OS Board Support Package (BSP) to provide a stable foundation.
- **Developer Environment:** We configured a full development stack, including Python, pip, and PyTorch, mirroring the tools the client's developers were accustomed to using on NVIDIA.

2. Porting & Validating AI Capabilities

- **Source Code Optimization:** Using our deep access to Qualcomm's BSP source code, we fine-tuned the system for the client's specific workloads.
- **YOLO Model Deployment:** We extracted and optimized the client's YOLO (You Only Look Once) real-time object detection models. Our team proved that the AIX-8000 could handle these complex AI tasks with the same—if not better—latency and accuracy.

Key Milestones & Outcomes

- **Competitive Edge:** By moving to the AIX-8000, the client now utilizes a platform aligned with the latest industry trends toward low-power, high-efficiency Qualcomm Edge AI (up to 48 TOPS).
- **Independent Development:** The client can now manage their AI box independently, leveraging our platform's robust connectivity (5G/Wi-Fi 7) and superior energy-per-watt performance.

Conclusion

This success story demonstrates that moving from NVIDIA to Qualcomm doesn't have to be a roadblock. With the AIX-8000, we provide a clear, high-performance path for companies looking to modernize their edge AI infrastructures.