

NVIDIA METROPOLIS: INTELLIGENT VIDEO ANALYTICS (IVA) SIMPLE AND SCALABLE SOLUTIONS

NVIDIA METROPOLIS AND DELL PLATFORM DIFFERENTIATORS

- A modular, future-proof, scalable platform for real-time insights
- A proven edge to cloud solution tested with multiple applications on predefined servers configuration
- Containerized applications for ease of installation, deployment, and management
- Ability to augment staff, reduce operational costs and increase operational effectiveness
- Improved ROI on video infrastructure by delivering actionable insights that impact safety and revenue

Industry Challenges

The video analytics market has seen the emergence of new sensors, higher resolutions, and longer retention times—generating massive streams of data that need analysis. Approximately 94% of video goes unreviewed, and companies struggle to support and scale their present infrastructure to maintain basic levels of service. Intelligent Video Analytics is key to turning this data into insights.

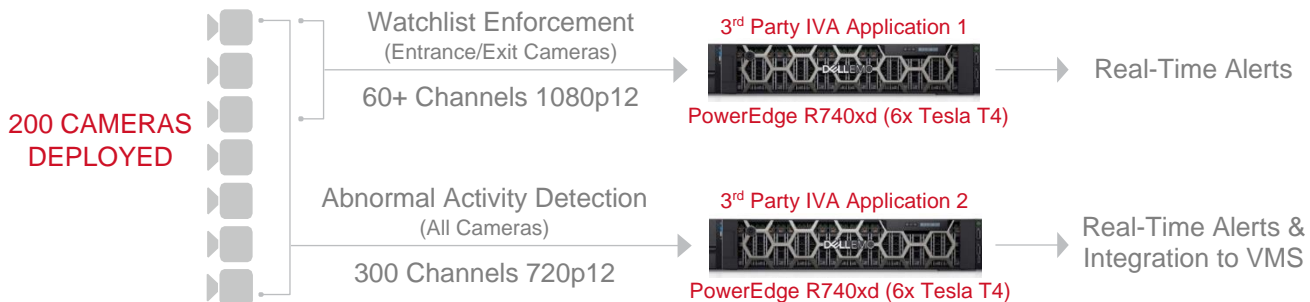
Video analytics solutions are a combination of processing hardware and video analytics applications from Independent Software Vendors (ISVs). These analytics solutions need to be designed, sized, integrated, and configured. This can be a complex challenge that can result in increased capital and operating expenses.



Nvidia Metropolis: Simple, Scalable Video Analytics Solution

To address these problems, NVIDIA has developed the Metropolis video analytics platform by partnering with Dell Technologies. The combination of an integrated and tested solution based on the Dell EMC PowerEdge R740xd server and NVIDIA T4 GPUs enables multiple video analytics applications to co-reside on a single server in a containerized manner. This solution makes it easy to deploy, manage, and scale

Example Deployment



Nvidia – Dell Metropolis Reference Architecture



NVIDIA has partnered with many leading analytic software vendors to develop a containerized docker solution.

Our partners own and distribute their solutions and work with customers to optimize for their applications.

This enables customers to deploy multiple IVA algorithms on a single GPU-accelerated server.

Vertical Applications and Outcomes

| APPLICATION | CHALLENGES | ANALYTICS-BASED BUSINESS OUTCOME |
|--------------------|--|--|
| Airports | <ul style="list-style-type: none"> ➤ Safety ➤ Critical infrastructure protection ➤ Passenger experience | <ul style="list-style-type: none"> ➤ Efficiency and reduced cost ➤ Improved passenger experience and throughput ➤ Enhanced safety |
| Retail | <ul style="list-style-type: none"> ➤ Stock shrinkage/theft ➤ Closing a sale—buyer vs. browser ➤ Digital competition | <ul style="list-style-type: none"> ➤ Decreased OpEx ➤ Increased sales |
| Mass Transit | <ul style="list-style-type: none"> ➤ Fare evasion ➤ Vandalism ➤ Violence | <ul style="list-style-type: none"> ➤ Reduced losses and increased income ➤ Enhanced safety and detection |
| Traffic Management | <ul style="list-style-type: none"> ➤ Traffic congestion ➤ Accidents and fatalities ➤ Red light and speed violations ➤ Intersection and pedestrian safety | <ul style="list-style-type: none"> ➤ Increase in road safety ➤ Reduce road congestion ➤ Incident prediction ➤ Optimize resources |
| Campus Security | <ul style="list-style-type: none"> ➤ Vandalism/Violence/Incidents ➤ Parking and vehicle violations ➤ Vehicle theft | <ul style="list-style-type: none"> ➤ Safer campus ➤ Incident prediction ➤ Reduction in violations |



[Learn More](#) about NVIDIA Metropolis solutions with Dell EMC servers



[Contact](#) a NVIDIA Metropolis Expert