

# Winning in the Age of AI

How organizations are  
accelerating intelligent  
outcomes everywhere

# Revolutionize decision making with intelligent automation.

Today, more than a quarter of organizations have reached full-scale deployment of five or more types of artificial intelligence (AI) applications.<sup>1</sup> These organizations rely on AI to improve IT efficiencies and mitigate risk to deliver better customer insights and experiences.

Every organization has a unique approach to how they implement and derive value from AI. But no matter where you are on your journey, Dell Technologies believes in the power of AI to revolutionize business.

The customers highlighted in the following pages are leveraging intelligent infrastructure, GPU-accelerated compute and software in a data-first approach that allows them to solve some of their most business-critical challenges.

<sup>1</sup>Deloitte Insights, [Becoming an AI-fueled organization](#), 2021.

# Digital Harmonic reinvents image processing.

Digital Harmonic software extracts information otherwise hidden in images. Using high harmonics in a groundbreaking method for extracting and analyzing waveforms and signals, it works across time, frequency and amplitude to reveal new information never seen before.



**20–80%**

reduced bandwidth  
for streaming



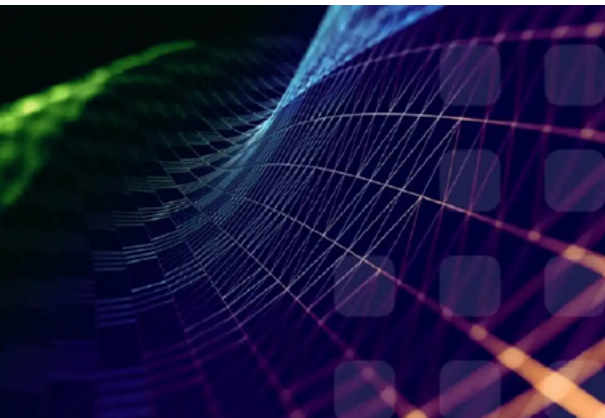
**<30ms/frame  
at 1080p**

for processing of  
full-motion video



**Automatic**

enhancement of  
still images and  
full-motion video



“We can think of no better collaborator than Dell Technologies to achieve the speed and scale needed.”

— Scott Haiges,  
CEO of Digital Harmonic

 digital harmonic®

# Taboola delivers content recommendations on a massive scale.

Taboola trains and runs AI models that provide billions of relevant content recommendations every day. They take advantage of computing power and simplified management to attain the maximum performance, scalability and automation.



**150,000**

AI-driven requests processed per second



**50**

**milliseconds**

to deliver real-time recommendations



**6X**

improvement in AI-based inferencing

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“We now get up to six times the performance on our AI-based inferencing....This helps reduce our costs.”

— Ariel Pisetzky,  
VP of IT and Cybersecurity, Taboola

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**Taboola**

# Duos Technologies keeps trains moving at full speed.

Duos Technologies® Group uses AI at the edge to process and analyze data in real time, so trains don't have to stop for inspections. Dell PowerEdge servers powered by NVIDIA® GPUs help provide prompt, actionable insights.



**120:1**

reduction in inspection time



**US\$3,000**

savings per instance for server recovery



**1.3TB**

of data processed and analyzed daily per site



“We count on PowerEdge servers to process and analyze the images and other data from the cameras and sensors 24x365, using our AI models.”

— David Ponevac,  
Chief Technology Officer,  
Duos Technologies

**duostech**

# Konica Minolta animates X-rays to enhance patient care.

Konica Minolta® applies more than 150 years of experience in imaging toward a game-changing invention that integrates Internet of Things, machine learning and AI to visualize movement inside the body, enabling doctors to diagnose conditions such as lung disease earlier.



**300  
images**

processed in  
a single scan



**3  
Minutes**

to animate the scanned  
images for diagnosis



**5-6  
minutes**

from patient  
entry to exit

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“In the future, we believe data  
will guide every medical decision.  
That’s why technology will be key for  
every healthcare company.”

— Kiyotaka Fujii,  
President of Global Healthcare at  
Konica Minolta

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# SURFsara accelerates the development of life-saving applications.

To diagnose pneumonia and emphysema from chest X-rays, SURFsara worked with the Dell Technologies HPC & AI Innovation Lab to create, train and optimize deep learning models and advance neural machine translation applications.



**Months to hours**

reduced model training time



**187X faster**

training of AI radiology models



**121X faster**

training of NMT models



“We decided to work with the HPC & AI Innovation Lab because they...are very good data scientists and they have access to state-of-the-art hardware.”

— Dr. Valeriu Codreanu,  
Senior HPC Consultant,  
SURFsara





# The University of Pisa extends the power of AI.

The University of Pisa runs traditional and AI workloads on the same systems, flexing to meet demand while making the most of IT resources. This Center of Excellence stays on the cutting edge with solutions from Dell Technologies, VMware® and NVIDIA.



## Zero

silos of AI-specific systems



## One

platform for deploying virtual desktops and applications



## Multiple

workloads supported on the same infrastructure

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“The biggest benefit of virtualized GPUs is flexibility, in the sense that you can design and adapt your enterprise infrastructure to AI workloads.”

— Maurizio Davini,  
Chief Technology Officer,  
the University of Pisa

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UNIVERSITÀ DI PISA



# NeuroMod spearheads efforts to decode the brain.

The Courtois Project on Neuronal Modelling (NeuroMod) leverages AI for brain mapping to ultimately speed identification and treatment of diseases such as dementia and Alzheimer's.



**20TB**

of data used for initial benchmarks



**500 hours**

of MRI brain activity collected for each subject



**99%**

validation accuracy after 10 epochs



“We are trying to find a new way to integrate activity from human neural networks to help train artificial networks.”

— Dr. Pierre Bellec,  
Scientific Director,  
Courtois Project on Neuronal  
Modelling



# AeroFarms takes sustainable vertical farming to new heights.

AeroFarms® uses data-driven insights to bring a new level of precision to indoor farming. AeroFarms collects millions of data points from sensors and computer vision systems to deliver flavor-filled nutrition.



**95% less**

water required



**390X**

higher crop yields



**12-day**

growing cycle

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“We are as much a capabilities company as we are farmers, utilizing science and technology to achieve our vision of totally controlled agriculture.”

— David Rosenberg,  
AeroFarms Co-Founder and CEO

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# Nature Fresh Farms innovates the future of fresh produce.

Nature Fresh Farms accelerates decision making and greenhouse innovation for fresher produce with fast, streamlined access to vital data using AI, robotics and automation.



**2X**

increase in business



**Zero**

new staff required



**Faster**

access to  
high-resolution video



“Isilon provides the extreme scalability and performance to...increase innovation in our greenhouses.”

— Keith Bradley,  
Director of Information Technology,  
Nature Fresh Farms



# Accelerate intelligent outcomes.

Dell Technologies helps organizations of all types and sizes illuminate opportunity and reveal the full potential of their data. And we do this in a consistent way across hybrid clouds on-premises, off-premises and at the edge.

With 35+ data science teams driving 450+ AI projects and 1,800+ team members dedicated to extracting insights from data, Dell Technologies brings proven AI expertise to improve IT efficiencies and mitigate risk to deliver better customer insights and experiences.

Dell Technologies can help you win in the age of AI.

Learn More  
[delltechnologies.com/ai](https://delltechnologies.com/ai)



# Dell Technologies and NVIDIA

## Enabling and accelerating AI workloads

Dell Technologies and NVIDIA work together to deliver engineering-validated solutions to accelerate AI, machine learning and deep learning workloads. With NVIDIA and Dell Technologies, you can take AI everywhere.

### Collaboration opportunities

- Design, test and bring your vision to life at [Customer Solution Centers](#) worldwide.
- Tap into collaborative expertise in the [AI Innovation Lab](#).
- Leverage best practices from our worldwide [AI Centers of Excellence](#).

### Services and financing

- [Analytics consulting services](#) provide a practical assessment how to achieve your goals.
- [Services](#) supplement your workforce with expert skills.
- [Managed Services](#) help reduce IT costs, complexity and risk.
- [Residency Services](#) provide expertise to help keep IT running at its peak.
- [Dell APEX](#) gives you a wide range of flexible consumption models.

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