



Edge AI Solutions

 Dell Technologies

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The Growing Case for AI at the Edge

Edge computing brings AI capabilities to the source of data enabling real-time processing and decision-making. It minimizes latency, boosts responsiveness, and tackles privacy/security concerns. Industries like manufacturing, transportation, healthcare, and smart cities use edge AI for predictive maintenance, operational optimization, and personalized experiences. With AI algorithms on edge devices, organizations gain efficient data analytics and machine learning, driving insights, efficiency, and cost savings. AI at the edge also ensures smooth operation in low-connectivity settings, minimizing cloud data transmission costs. The fusion of AI and edge computing creates a smarter world, adapting to real-time insights for enriched user experiences.

Despite the numerous advantages of AI several obstacles hinder its rapid adoption:

- Integrating AI into existing infrastructure can be complex, requiring compatibility and seamless integration with legacy systems
- The need for AI expertise and talent is a significant hurdle, as developing and managing AI solutions demand specialized skills
- Ensuring data privacy and compliance with regulations is essential, particularly when handling sensitive information
- Cost and resource constraints, as well as the need for continuous updates and maintenance, are further obstacles that organizations must navigate to implement AI solutions successfully
- Overcoming these challenges demands careful planning, investment, and a strategic approach to maximize the benefits of AI in business domains

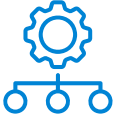
It's essential to partner with the right provider who can offer:



Expertise



Faster Time-to-Market



Customized Solutions



Scalability



Data Security



Risk Mitigation



Continuous Support



Streamlining of Resources for Core Goals

Use Cases



Image Analytics and Object Detection



Natural Language Processing



Predictive Maintenance



Automated Logistics



Personalized Customer Experiences



Improving Production

End-to-End Portfolio of Solutions and Services for AI

Arrow’s Intelligent Solutions business and Dell Technologies OEM Solutions offer a powerful combination of hardware, services, and AI expertise, empowering businesses to unlock the full potential of artificial intelligence across their operations and products. Dell OEM Solutions’ purpose-built edge devices and AI-ready infrastructure provide the computing power and GPU acceleration capabilities necessary for real-time AI processing. Working with Dell OEM Solutions, Arrow delivers end-to-end support to optimize product performance, management, and deployment throughout its lifecycle, including design and development services, global supply chain management, integration, deployment, and ongoing technical support.



AI Hardware

Dell OEM technologies AI-driven PCs, workstations, servers, storage, and networking hardware



Design Engineering Services

Arrow’s AI infrastructure right-sizing, performance testing and optimization, algorithm development



Product Lifecycle Services

Arrow’s manufacturing, global supply chain management and fulfillment, professional and support services

Dell Technologies OEM Solutions AI Hardware Portfolio

Dell Technologies OEM Solutions provides a diverse portfolio of AI-powered hardware, including servers, storage, networking equipment, workstations, gateways, and PCs, all designed to unleash the full potential of artificial intelligence. By integrating industry-leading GPU technology from NVIDIA and Intel®, these cutting-edge systems accelerate AI, machine learning, and data-intensive workloads.

Contact Arrow to explore Dell Technologies OEM Solutions’ comprehensive offerings for artificial intelligence, and let our experts guide you in choosing the right products for your specific applications.

Featured Dell AI Hardware Offerings

AI Training Servers	AI Edge Servers			Workstations	Gateways
 PowerEdge XE9640  PowerEdge XE9680  PowerEdge XE8640	 PowerEdge XR5610  PowerEdge XR7620	 PowerEdge XR8000  PowerEdge XR4000	 PowerEdge XR11  PowerEdge XR12	 Dell OptiPlex 7000 XE Micro  Dell Precision 3260 XE Compact	 EGW-3200 and EGW-5200 Gateways

Arrow's Engineering Design Services for AI

Arrow's comprehensive design engineering support covers the entire journey from concept to implementation. Leveraging the latest AI technology advancements, we tailor solutions to address your industry's unique challenges and opportunities. With a focus on customization and scalability, our design engineering services for AI enable you to harness the full potential of artificial intelligence, drive efficiency, and make data-driven decisions that fuel your organization's success.

Edge AI Infrastructure Right Sizing

Arrow's Edge AI infrastructure rightsizing service optimizes hardware and software resources for AI workloads at the edge of the network. We analyze specific AI tasks and workloads, select suitable hardware components, and address power and thermal constraints. Our goal is to achieve efficient and cost-effective AI execution on edge devices, meeting performance requirements while minimizing resource waste and ensuring scalability for future needs.

Performance Optimization

Our performance optimization service enhances the efficiency and speed of your AI applications and models. Through benchmarking, careful analysis, and profiling, we identify bottlenecks and areas for improvement within your AI workflows. Our team of experts then fine-tunes your algorithms, leverages hardware acceleration (as needed), and optimizes code to maximize AI performance. The result is faster inference times, reduced latency, and improved resource utilization.

Hardware Validation

Arrow offers comprehensive hardware validation services, including functionality, environmental, and reliability testing to ensure the reliability and performance of electronic components and systems. With state-of-the-art facilities, we validate hardware under various conditions, such as extreme temperatures, humidity, vibration, and shock, even if it goes beyond standard specifications when needed.

Algorithm Development

Arrow's team of skilled data scientists and AI experts specializes in custom AI algorithm development to suit specific industry requirements and use cases, including machine learning, deep learning, natural language processing, and computer vision. We collaborate closely with clients to understand specific needs and objectives, ensuring the AI algorithms provide accurate and actionable insights.

Machine Learning (ML) Data Services

Our ML data services include comprehensive data management solutions, covering data pipeline management, integration, preparation, and data annotation. These services ensure seamless handling of data throughout the machine learning lifecycle from sourcing and processing to preparing labeled datasets for training AI models. With expert data management, businesses can optimize their machine learning workflows, fueling accurate and effective AI-driven solutions.

Managed R&D Services

Managed R&D services offer end-to-end support for businesses during the research and development process, including R&D partnerships, concept-to-prototype guidance, technology assessment, and blueprinting edge-to-cloud solutions. With dedicated expertise and support, organizations can accelerate innovation and efficiently bring their cutting-edge products and solutions to market.

Arrow's Product Lifecycle Services

Streamline Manufacturing, Achieve Global Scalability, and Expand to New Markets

Arrow's design engineering support and services cover every step of your project from concept to implementation to ensure that you maximize business outcomes throughout the entire lifecycle of your product. Multiple service mechanisms can help OEMs succeed in new product initiatives, from ensuring the appropriate design trade-offs between cost and functionality to implementing field upgrades. At Arrow, we provide everything from manufacturing and supply chain services to financing and support.

System Design and Engineering



Easily design, validate, build, and test your product, speeding up your time to market.

Supply Chain Management



Best-in-class processes, world-class infrastructure, extensive global footprint, and reach.

Integration



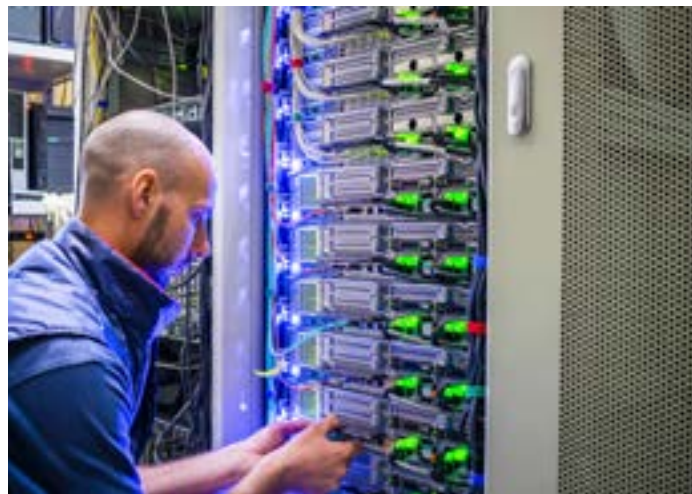
Worldwide integration centers.

Product Fulfillment



From simple procurement needs to international logistics – we can manage all your fulfillment needs.

Support and Installation



24x7 personalized support - remote or on-site, technology deployments, and complex installations.

With a footprint in **90+** countries, Arrow can support you from any location and help you expand to international markets. Scale globally with Arrow on several fronts-logistics, support, installations, compliance, and regulations.



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