



# aiDAPTIV™ Technology

## Industry Use Cases: Building Smarter Businesses with Pascari aiDAPTIV LLM Domain Training

As industries increasingly rely on AI-driven insights, on-premises large language model (LLM) training is quickly gaining traction. Organizations seek affordable, secure, private, and tailored AI capabilities to better serve their customers and employees. Pascari aiDAPTIV delivers a scalable, high-capacity LLM training environment, enabling you to train domain-specific models efficiently on-premises while keeping full control of your data.

aiDAPTIV empowers you to harness the full potential of AI with on-premises LLM training. Whether improving fraud detection in finance or enhancing predictive maintenance in manufacturing, aiDAPTIV delivers real business impact.

This solution brief highlights the top five use cases for on-premises LLM training across ten key industries.

## Benefits



### Fits Your Budget

Offloads expensive HBM & GDDR memory to cost-effective flash memory. Significantly reduces the need for large numbers of high-cost and power-hungry GPU cards. Keeps AI processing where the data is collected or created, saving data transmission costs to and from the public cloud.



### Simple to Use and Deploy

Offers all-in-one AI toolset that enables ingest to RAG and fine-tuning to inference using an intuitive graphical user interface. Deploys in your home, office, classroom, or data center using commonplace power.



### Keeps Data in Your Control

Enables LLM training behind your firewall. Gives you full control over your private data and peace of mind over data sovereignty compliance.

# Top 10 Industries Leveraging On-Premises LLM Training



## 1. Financial Services / Key Use Cases:

- **Fraud Detection:** Identify suspicious transactions and prevent financial crimes.
- **Algorithmic Trading:** Enhance predictive analytics for real-time trading decisions.
- **Risk Management:** Assess and mitigate operational, credit, and compliance risks.
- **Customer Service Automation:** Improve chatbot accuracy for banking and investment queries.
- **Regulatory Compliance:** Automate audits and ensure adherence to financial regulations.



## 2. Healthcare / Key Use Cases:

- **Medical Imaging Analysis:** Support diagnostics with AI-driven insights from radiology and pathology.
- **Patient Data Analysis:** Identify trends and personalize treatment plans.
- **Clinical Trial Optimization:** Enhance trial design and patient recruitment.
- **Drug Discovery:** Accelerate molecular research and drug formulation.
- **AI-Assisted Documentation:** Reduce administrative burdens with real-time transcription and summarization.



## 3. Legal Services / Key Use Cases:

- **Case Law Research:** Summarize and analyze precedents for legal professionals.
- **Contract Review & Drafting:** Identify risk clauses and suggest optimizations.
- **E-Discovery:** Process and categorize large volumes of legal documents.
- **Litigation Strategy:** Predict case outcomes based on historical data.
- **Regulatory Compliance:** Ensure legal frameworks align with industry-specific regulations.



## 4. Government & Defense / Key Use Cases:

- **Intelligence Analysis:** Process vast datasets to detect security threats.
- **Cybersecurity Enhancement:** Identify vulnerabilities and prevent cyberattacks.
- **Public Policy Development:** Analyze public sentiment and economic trends.
- **Military Operations:** Automate strategic planning and logistics management.
- **Secure Communication:** Encrypt and manage classified information securely.



## 5. Manufacturing / Key Use Cases:

- **Predictive Maintenance:** Reduce downtime by forecasting equipment failures.
- **Supply Chain Optimization:** Improve logistics and inventory forecasting.
- **Quality Control Automation:** Detect defects using AI-driven vision systems.
- **Production Line Efficiency:** Optimize workflows for higher productivity.
- **Workplace Safety Monitoring:** Analyze workplace conditions for hazard detection.

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## 6. Energy & Utilities / Key Use Cases:

- **Grid Management:** Optimize energy distribution and detect faults.
- **Predictive Maintenance:** Extend asset lifespan and prevent outages.
- **Renewable Energy Forecasting:** Improve solar and wind energy predictions.
- **AI-Driven Cybersecurity:** Protect critical infrastructure from attacks.
- **Smart Meter Data Analysis:** Enhance customer energy insights and billing accuracy.



## 7. Telecommunications / Key Use Cases:

- **Network Optimization:** Predict and prevent connectivity issues.
- **Customer Support Automation:** Enhance chatbot accuracy for service requests.
- **Fraud Detection:** Identify anomalies in billing and usage patterns.
- **5G Deployment Planning:** Optimize infrastructure investments.
- **Real-Time Speech Analysis:** Improve call center efficiency and sentiment analysis.



## 8. Retail & E-Commerce / Key Use Cases:

- **Personalized Shopping:** Get AI-driven recommendations based on consumer behavior.
- **Inventory Demand Forecasting:** Optimize stock levels using real-time data.
- **AI-Powered Chatbots:** Enhance customer support with natural language processing.
- **Dynamic Pricing Strategies:** Adjust prices based on demand and competitor analysis.
- **Fraud Prevention:** Detect anomalies in transactions and returns.



## 9. Education / Key Use Cases:

- **Adaptive Learning Systems:** Personalize curriculum for students.
- **AI-Generated Content:** Automate quiz and study material creation.
- **Student Performance Analytics:** Predict learning outcomes and improve retention.
- **Language Translation & Accessibility:** Enhance inclusivity for diverse learners.
- **Research Paper Summarization:** Assist academics in literature reviews.



## 10. Transportation & Logistics / Key Use Cases:

- **Route Optimization:** Use AI-driven logistics planning for efficient deliveries.
- **Fleet Management:** Predict vehicle maintenance needs and optimize fuel efficiency.
- **Supply Chain Risk Analysis:** Identify disruptions and mitigate delays.
- **Autonomous Vehicle Training:** Enhance decision-making models for self-driving systems.
- **Real-Time Traffic Predictions:** Improve congestion management and urban planning.

# Why Choose aiDAPTIV for On-Premises LLM Training?



## 1. Customization & Control

Trains models with proprietary data to gain a competitive edge.



## 2. Affordability

Fits your budget for on-premises deployment. Reduces cloud dependency and minimizes long-term operational costs.



## 3. High Capacity & Scalability

Trains LLMs faster with optimized AI hardware and software ecosystem.



## 4. Data Security & Compliance

Keeps sensitive data in-house and aids compliance with industry regulations.



## 5. Easy Deployment & Integration

Seamlessly integrates into your existing IT infrastructure.