



## Industry Use Cases: Building Smarter Businesses with 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. Phison's aiDAPTIV+ solution delivers a scalable, high-capacity LLM training environment, enabling businesses to train domain-specific models efficiently on-premises while keeping full control of their data.

Phison's aiDAPTIV+ solution empowers organizations 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, thus saving data transmission costs to and from the public cloud.



#### Simple to Use and Deploy

Offers all-in-one AI toolset enabling 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 Experiences:** 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:** 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 Phison aiDAPTIV+ for On-Premises LLM Training?



## 1. Customization & Control

Trains models with proprietary data to gain a competitive edge.



## 2. Affordable

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



## 3. High Capacity & Scalability

Train LLMs faster with Phison's optimized AI hardware and software ecosystem.



## 4. Data Security & Compliance

Keep sensitive data in-house and ensure compliance with industry regulations.



## 5. Easy Deployment & Integration

Seamlessly integrate aiDAPTIV+ into your existing IT infrastructure.

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