aiDAPTIV+
Data as Currency — Why Phison aiDAPTIV+ Is the Future-Ready Solution
PHISON

Data may be the hottest currency in AI, but it depreciates fast. Harness your business's data with the power of Phison's aiDAPTIV+ technology.

In today's digital economy, data is one of the most valuable assets a business can possess. It fuels innovation, drives decision-making, and powers the AI engines that increasingly define your competitive advantage. Data is the hottest new AI currency, but there's a catch—its value depreciates over time, often much more rapidly than traditional assets.

Old data can affect your ability to compete

The concept of data as a strategic asset isn't new, but there's a critical underlying truth: The most valuable data is the most recent data, and the second most valuable data is the proprietary information unique to your business. Companies operating on yesterday's insights risk making decisions based on outdated assumptions. And in fast-moving sectors like finance, retail, logistics and healthcare, the value of stale data can approach zero very quickly.

As generative AI models like ChatGPT, DeepSeek, Llama, and many others continue to gain widespread attention and adoption, the inherent limitations are becoming more apparent. These models are typically trained on data that is at best months, and more often, years old. The general knowledge that's available is impressive, but their lack of recency can lead to missed opportunities, poor forecasting, and outdated advice. Furthermore, general knowledge is helpful, but to get a true competitive edge, AI models need the addition of your business's up-to-date private data to make them even smarter. That can be a problem, especially for businesses that need to act in real time.

One solution is on-premises AI training with your real-time data, enabled by advanced technology like Phison aiDAPTIV+. While it's possible to train data using cloud solutions, such an approach can be expensive and has potential security implications. On-premises training allows you to harness the full power of your most current data while maintaining strict control over privacy, security, and compliance. Let's explore how this paradigm shift is unfolding and what it means for the future of enterprise AI.

Why data depreciates

Data doesn't come with an expiration date, but its usefulness diminishes over time. Market conditions change, new products arrive, customer preferences evolve, competitors adjust, and supply chains shift. Data that was relevant yesterday may be misleading today. Consider a few examples:

Retail
A surge in demand for a product last month may have been caused by a short-lived trend. The past few months of U.S. tariffs are a prime example of this. Planning inventory based on outdated patterns could lead to overstock or understock.

Finance
A predictive model trained on last quarter's trading data may completely miss current market conditions. It's imperative to use the latest stock prices and trends to have any chance of success in the financial realm.

Healthcare
Models built on past patient information may fail to capture the latest virus variants or the newest treatment protocols.

In each case, using older data might not just be less useful, it could be actively harmful if it's driving critical decisions. This is why fresh data is so crucial, and why businesses are looking for ways to continuously incorporate the latest data into their AI workflows.

The limitations of pretrained cloud AI models

Large language models (LLMs) like OpenAI's ChatGPT, Meta's Llama, DeepSeek's R1, and others are trained on enormous datasets, often collected from public internet sources. They are powerful and versatile, capable of generating human-like text, summarizing documents, coding, answering questions, and more. However, they suffer from two key limitations: They don't know what's happening right now, and they have no insight into a company's private data.

Their knowledge is fixed at the time of their last training update, which is often six months or more in the past. Even when they're fine-tuned, that process typically doesn't involve your company's private, dynamic data. For use cases that demand real-time insights, such as forecasting, operations management, and fraud detection, that lag can make public AI models ineffective or even dangerous.

Moreover, sending sensitive business data to the cloud to fine-tune or prompt these models raises serious concerns about privacy, compliance, and data sovereignty. In highly regulated industries, or in businesses that want to protect their proprietary edge, cloudbased AI simply isn't viable.

The aiDAPTIV+ advantage: Training on your data, securely

To bridge the gap between general AI solutions and real-time business value, many enterprises are turning to on-premises AI solutions. That's where Phison aiDAPTIV+ comes in. Phison aiDAPTIV+ technology allows you to train AI models locally, at a fraction of the cost of traditional approaches depending solely on the VRAM footprint of products such as NVIDIA's NVL72. By extending the size of the GPU memory, aiDAPTIV+ can incorporate the freshest data available, without ever exposing that data to the cloud. What's more, aiDAPTIV+ solutions are available right now, with zero lead time. Order one today and your business can be up and running within days. There are numerous benefits of aiDAPTIV+:

Real-time relevance
On-premises training enables models to reflect the current state of your business and environment. This leads to sharper predictions, more effective automation, and faster responses to changing conditions.

Data privacy and control
By keeping all your data in-house, you can avoid the risks associated with transferring proprietary or sensitive information to third-party servers. This is critical for compliance with regulations like GDPR, HIPAA, and CCPA.

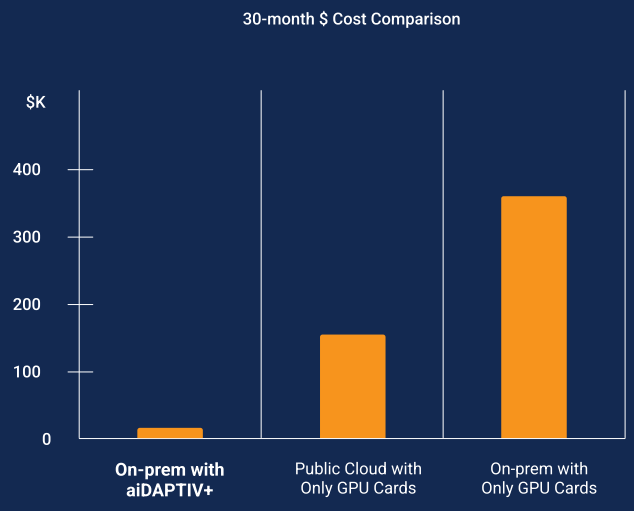
Customization
Unlike generic cloud AI, models trained on your data can be fine-tuned to your specific industry, business context, and workflows. This leads to better alignment with business goals and more actionable insights.

Cost efficiency
While cloud AI often incurs ongoing usage costs, on-premises AI can reduce expenses in the long run, especially for businesses that generate high volumes of data and queries.

Phison aiDAPTIV+ not only enables on-premises AI, it also empowers you to unlock the full value of your data before it depreciates. And it can simplify AI for you with a scalable, modular AI infrastructure that integrates with your existing hardware and IT environments.

aiDAPTIV+ supports secure, local model training and inference; custom model tuning on continuously updated datasets; high-speed storage and processing optimized for AI workloads; and flexible integration with edge and IoT devices. aiDAPTIV+ also enables the training of significantly larger data models on less-expensive hardware.

Affordable
Offloads expensive HBM and GDDR memory to cost-effective flash memory. Eliminates the need for large numbers of high-cost and power-hungry GPU cards.



Note: Assumes 4 NVIDIA 6000 ADA GPUs on-site versus 8 NVIDIA H100 GPUs in the cloud

Traditional AI models require vast amounts of high bandwidth memory (HBM) or GDDR memory designed specifically for GPU solutions, and while that can offer the highest performance, it comes with an extreme cost. aiDAPTIV+ offloads much of the memory requirement to a flash memory-based Phison SSD designed for the technology, trading raw speed for greater capacity and affordability. It's an ideal solution for small- to medium-sized businesses that want to take control of their data.

Modern GPU solutions used for AI workloads typically come with relatively limited amounts of on-board, high-speed memory. NVIDIA's consumer-focused GeForce line, for example, tops out at 32 GB on the RTX 5090, with professional solutions that cost five times as much and still only provide up to 96 GB of memory. Data center solutions such as Blackwell B200 double the memory capacity to 192 GB per GPU, but that's still insufficient for training more complex data models.

Using Phison's aiDAPTIVCache family of SSDs, aiDAPTIV+ software extends GPU memory by 320 GB for consumer PCs, and up to 8 TB for servers and workstations. Getting an equivalent amount of high-speed HBM capacity from NVIDIA's data center GPUs requires over 40 processors spread across at least six servers, with each GPU estimated to cost $40,000 or more.

Phison aiDAPTIV+: AI at the speed of business

We're entering an era where speed, security, and specificity define the value of AI. Businesses that cling to static models trained on old, general knowledge data will fall behind. The winners will be those who understand that data depreciates, and that the best insights come from training models continuously, securely, and locally with fresh, private data.

The combination of real-time data and on-premises AI represents a transformative opportunity. With tools like Phison's aiDAPTIV+, you can take control of your AI destiny, developing smarter systems that evolve in lockstep with your business and its environment.

In the race to leverage AI, it's all about who has the most recent, relevant, and secure data, and how fast they can act on it. By focusing on the real-time application of fresh, private data, aiDAPTIV+ helps you move from insight to action without delay and without compromise.

If you're ready to make your data work harder and faster, explore how aiDAPTIV+ can help your business harness the true power of real-time AI, securely and on your own terms.