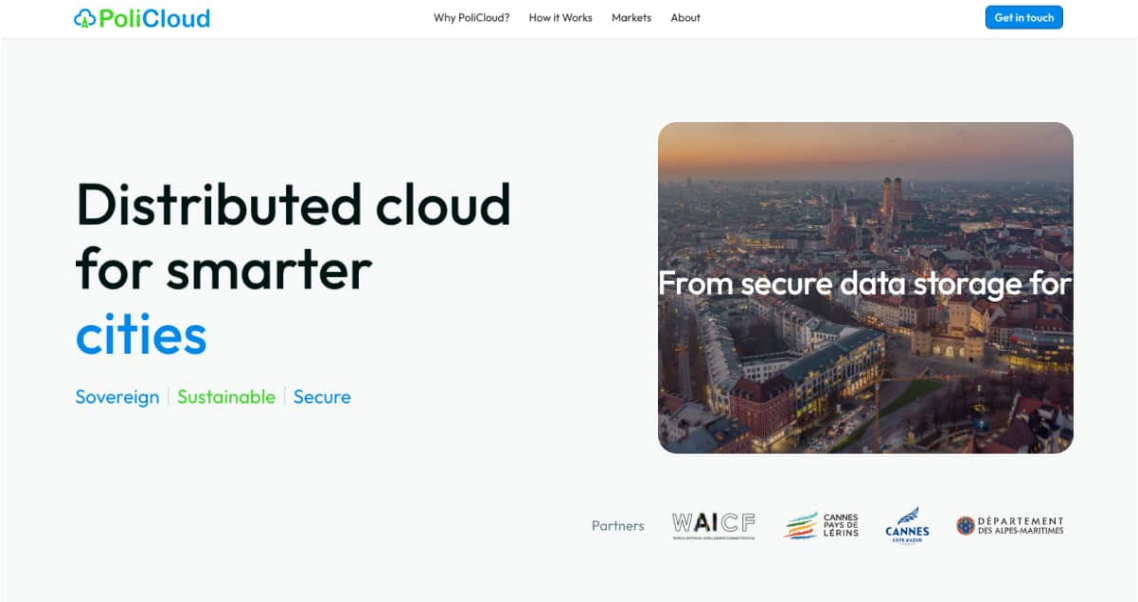
Building the Sovereign Distributed AI Cloud of the Future

Attom Technology Empowers PoliCloud to Deliver Distributed AI Infrastructure for the French Government

01. The Foundational Revolution of the AI Era

In an era of exponential growth in Artificial Intelligence (AI), computing power has become the core element of national competitiveness and corporate innovation. However, traditional hyperscale data centers are increasingly showing limitations in construction cycles, energy consumption, and data sovereignty. French leading cloud service provider **PoliCloud**, has partnered with green prefabricated data center expert **Attom Technology**, to lead a revolution in AI infrastructure construction. By deploying Attom's **AgileCore™ AI Modular Data Centers**, PoliCloud not only provides powerful distributed AI computing power for the French government and enterprises but also successfully addresses the three core challenges of **data sovereignty, power bottlenecks, and high-density cooling**, laying a solid foundation for the future digital society.



PoliCloud's Distributed Cloud Concept: Providing Sovereign Cloud Services for Cities and Enterprises

02. Customer Vision: PoliCloud—The Cloud Built for Autonomy and Innovation

PoliCloud was born from an ambitious vision: to break the monopoly of the existing cloud market and build a "sovereign cloud that fosters infinite, ecologically responsible innovation." It is committed to returning control of the cloud to users, offering a solution that comprehensively surpasses traditional large data centers in terms of cost, sovereignty, and sustainability for cities, research institutions, and local businesses. Its core philosophy is to empower the local ecosystem, ensuring both data sovereignty and environmental responsibility.

03. Core Challenges: Seeking Breakthroughs Amidst Constraints

In implementing its distributed blueprint, PoliCloud had to directly confront three severe challenges:

1 **National AI Sovereignty and Security**
Against the backdrop of increasingly strict regulations like the General Data Protection Regulation (GDPR), the primary task is to build an AI computing platform that fully complies with data sovereignty requirements, ensuring sensitive data never leaves the country, thereby safeguarding national digital strategic security.

2 **Energy Bottlenecks and Grid Pressure**
Traditional data centers are energy-consuming behemoths, placing immense pressure on national power grids. The key to achieving ubiquitous AI is finding a way to rapidly deploy computing power in areas with limited power resources and optimize energy distribution through a distributed architecture.

3 **High-Density Cooling Challenge for AI Computing**
AI training and inference generate massive heat, especially high-power GPU clusters, where single-rack power density can exceed 50kW, far surpassing the limits of traditional air-cooling technology. Finding an efficient, energy-saving, and flexible cooling solution became the technical core for the project's success.

04. The Solution: Attom AgileCore™—Engineered for Distributed AI

To meet these challenges, PoliCloud ultimately selected Attom Technology's **AgileCore™ AI Prefabricated Modular Data Center**. This "all-in-one" solution, housed in a standardized container, perfectly aligns with all of PoliCloud's requirements for a distributed, sovereign, and highly efficient AI infrastructure.

PoliCloud Container Concept: "Ceci n'est pas un conteneur... C'est un PoliCloud"

Lego-Style Deployment: Achieving True "Compute Everywhere"

Attom AgileCore™ adopts a fully prefabricated design, integrating all critical subsystems—power supply, cooling, racks, monitoring, and fire suppression—into a standard container. This "Data Center as a Product" model allows PoliCloud to rapidly deploy AI computing power like shipping cargo to any location where it is needed—be it city centers, corporate campuses, or remote energy sites. Data is generated, processed, and stored locally, physically ensuring data sovereignty and building an autonomous and controllable AI neural network for the nation.

Flexible Liquid Cooling Technology: Taming the AI "Heat Wave"

Addressing the high heat dissipation demands of AI, Attom provides industry-leading, comprehensive liquid cooling solutions, including **Direct-to-Chip**, **Rear Door Heat Exchangers (RDHx)**, and **Immersion Cooling**. This flexible cooling architecture not only easily handles the cooling challenge of over 100kW per rack, ensuring stable operation of GPUs under high load, but its combination with free cooling technology also reduces the data center's **PUE (Power Usage Effectiveness) to below 1.2**, achieving extreme energy efficiency.

Waste Heat Recovery: Turning "Burden" into "Resource"

Attom's solution goes beyond energy saving; it creates value. The large amount of high-grade waste heat captured by the liquid cooling system can be recovered through a heat exchange system and used for heating surrounding communities, office buildings, or greenhouses. This innovative design transforms the data center from a mere energy consumer into an energy contributor integrated into the urban ecosystem, perfectly embodying the concept of green and sustainable development.

05. Results & Value: Empowering France's AI Future

70% Reduction in Deployment Time	**< 1.2** PUE Energy Efficiency Metric

The partnership between PoliCloud and Attom sets a new industry standard for distributed AI infrastructure. The construction cycle is reduced from years to weeks, rapidly responding to national strategy and market demand; extreme energy efficiency significantly lowers operating costs, aligning with national carbon neutrality goals; the "Pay-as-you-grow" model avoids massive upfront capital investment, making investment more flexible and efficient; and physical data sovereignty is guaranteed, providing the most secure AI foundation for the government and critical industries.

> *"Attom's container solution is more than just hardware; it is the cornerstone of our distributed AI strategy. AgileCore frees us from cumbersome civil engineering, allowing us to focus on what we do best—providing efficient and secure AI cloud services for critical national missions."*
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> **— PoliCloud Technical Team**

06. Conclusion

The successful practice of PoliCloud and Attom Technology eloquently proves that the distributed AI data center is the inevitable path to the future. It not only provides strong technical assurance for France's digital sovereignty and AI development but also offers an excellent paradigm for how countries worldwide can build autonomous, controllable, efficient, and green digital infrastructure in the AI era.

Attom Technology

We believe the world is becoming fully connected through digital intelligence.

We create prefabricated micro data centers to lay the foundation for the digital future.

Website: https://attom.tech

Website: https://mmcuae.ae