

Private and sovereign AI in action

AI infrastructure for regulated and competitive environments

Organizations in regulated industries are under pressure to leverage AI for competitive advantage while maintaining strict control over sensitive data and complying with diverse regulatory frameworks. From financial services and healthcare to critical infrastructure, innovation must take place within clearly governed environments.

Private and sovereign AI provide the foundation for secure AI adoption at scale. They enable organizations to modernize critical services with confidence, mitigating cyber risk, reducing regulatory exposure and building operational resilience. These client stories demonstrate how we have helped organizations in a range of industries to implement private and sovereign AI to balance innovation, control and operational confidence.

Protecting high-value intellectual property in a multipolar world

Global intellectual property management leader

We helped our client progress from early-stage and evolving AI initiatives to an integrated, well-governed sovereign AI operating model that strengthened client trust and improved control across jurisdictions.

Business need

A global intellectual property (IP) services provider managing highly sensitive patent and legal data across multiple jurisdictions faced mounting pressure to:

- Meet strict data residency and regulatory requirements
- Protect proprietary IP from cross-border risk
- Reduce hyperscaler dependency
- Introduce intelligent automation with predictable cost

The organization had to deliver innovation while balancing cost, compliance and control.

Solution

We designed and implemented the core AI infrastructure for a managed sovereign AI platform. Legacy IP management systems are being retrofitted to operate within this model.

Rather than forcing a single model, NTT DATA defined a sovereign-by-design architecture where:

- Sensitive data remains in controlled environments
- AI services are integrated with strict access and policy enforcement
- Governance is embedded in infrastructure, not added later

The target architecture is built on:

- Dedicated infrastructure aligned to regional data residency requirements
- Secure private AI environments for sensitive workloads
- AI-enabled automation layered on compliant data foundations
- Embedded security, monitoring and governance mechanisms

Outcomes

- Full visibility of and fine-grained control over global AI operations
- Reduced exposure to cross-border regulatory and sovereignty risk
- Accelerated transition from pilot to production for AI-enabled services
- Greater cost predictability through sovereign infrastructure governance

AI innovation under defense-grade constraints

Global aerospace and defense leader

For this client, AI has become an innovation accelerator — not only compliance-driven — that strengthens operational control and national resilience.

Business need

A multinational aerospace and defense organization needed to scale AI across manufacturing and engineering environments while complying with:

- National defense regulations
- Strict export controls
- Sovereign infrastructure mandates

AI innovation could not compromise compliance, control or national oversight.

Solution

NTT DATA implemented a full-stack sovereign AI platform, integrating:

- Region-specific air-gapped infrastructure
- Private AI model environments for classified workloads
- Secure integration across the client's internal ecosystem
- Continuous compliance and audit-ready governance
- Full software stack to manage MLOps/LLMOps cycles

Outcomes

- Alignment with defense-grade compliance mandates
- Reduced integration complexity through unified governance
- Increased resilience against geopolitical and supply-chain disruption
- Clear separation of the client's different internal business units
- Consolidated identity and access management
- Common policy enforcement across environments

Accelerating clinical innovation while protecting patient data

Leading cancer-research hospital

A leading hospital group moved from experimental AI initiatives to an industrialized, governed AI research capability. This transformation enables the group to innovate at scale while maintaining strong control over sensitive patient data.

Business need

A world-renowned cancer-research hospital sought to expand the use of AI across medical imaging research, with a focus on developing and evaluating new algorithms to support future advances in cancer diagnosis.

The hospital group faced strict requirements regarding:

- Patient data sovereignty
- Model training governance
- Clinical-grade compliance

Innovation needed to progress within a controlled research environment, balancing regulatory compliance, cost constraints and absolute control over sensitive data.

Solution

NTT DATA deployed an AI factory machine learning operations (MLOps) platform, purpose-built for regulated healthcare environments.

The architecture includes:

- Secure data ingestion and classification
- Controlled model training and fine-tuning
- Workflow automation with human oversight
- Embedded governance and audit mechanisms

AI development was industrialized within a private compliant domain, enabling controlled and repeatable research. The project accelerated the development and evaluation of commercial and in-house AI models developed for cancer research.

Outcomes

- A scalable research environment supporting continuous innovation pipelines
- Enhanced governance and audit-readiness
- Reduced operational and reputational risk in handling sensitive patient data
- Accelerated AI research within a controlled AI factory framework
- Repeatable, industrialized AI research capability, ready to support clinical adoption pathways





Enable private and sovereign AI on your terms

Balance control and visibility with sovereign infrastructure, enterprise AI factories and hybrid orchestration.

As your end-to-end partner, NTT DATA enables you to move from pilot to production and operate private and sovereign AI with confidence — securely, compliantly and at scale.

Visit nttdata.com to learn more.

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