

# Securing AI at Scale:

## Inside a Major Bank's Private Deployment Journey

A leading US financial institution successfully transformed its AI operations by transitioning from public cloud models to a private deployment solution, addressing critical security concerns while enabling enterprise-wide AI capabilities. This case study examines their journey, challenges, and successful implementation strategy.

### Strategic Context

#### Institution Profile

- Top-tier US banking institution
- Full-service financial organization
- Multiple business lines including retail, commercial, and investment banking
- Extensive branch network and wealth management services

#### Business Drivers

- Need for rapid insight extraction from vast data repositories
- Requirement for real-time customer interaction analysis
- Regulatory compliance demands
- Competitive pressure to innovate

### Market Overview

Enterprises are avoiding certain AI use cases because of data-related issues such as data quality and accuracy, intellectual property, and usage rights. These are their top concerns:

58%

using sensitive data in models

58%

managing data privacy issues

57%

managing data security issues

# Implementation Journey

## Phase 1: Initial Approach & Challenges

Challenge	Impact	Risk Level
Security	Data exposure & compliance risks	Critical
Latency	Unsuitable for real-time needs	High
Cost	Unsustainable at enterprise scale	High
Output Quality	Insufficient accuracy for key tasks	Medium

## Phase 2: Strategic Solution Design

### Core Use Cases

Data Summarization Engine	Communication Intelligence System
<p><u>Purpose</u></p> <p>Process enormous amounts of data, such as news stories and earnings call transcripts.</p>	<p><u>Purpose</u></p> <p>Analyze customer interactions and sentiment via vast repositories of chats, emails, and other communications.</p>
<p><u>Users</u></p> <p>Wealth managers, investment advisors, analysts</p>	<p><u>Users</u></p> <p>Relationship managers, market analysts</p>
<p><u>Value</u></p> <p>Insight extraction and decision support</p>	<p><u>Value</u></p> <p>Relationship management and market opportunity identification</p>



# Technical Implementation

## Private Deployment Architecture

- Deployment within bank's AWS Virtual Private Cloud
- Custom-tuned AI models for specific use cases
- Integrated security and compliance frameworks
- Real-time processing capabilities

## Security & Compliance Framework

Component	Implementation Approach
Data Protection	End-to-end encryption within VPC
Access Control	Role-based authentication system
Audit Trail	Comprehensive logging and monitoring
Compliance	Automated regulatory compliance checks

# Success Factors

### Technical Excellence

- Expert implementation support
- Specialized AI model customization
- Security-first architecture design

### Change Management

- Phased deployment strategy
- Comprehensive staff training
- Clear communication channels

### Strategic Partnership

- Collaborative problem-solving approach
- Access to top-tier AI expertise
- Ongoing technical support and optimization

# Impact & Benefits

### Operational Improvements

- Enhanced data security and compliance posture
- Improved processing speed and accuracy
- Sustainable cost structure
- Customized AI capabilities

### Strategic Advantages

- Competitive differentiation through AI innovation
- Scalable foundation for future AI initiatives
- Strengthened regulatory compliance
- Improved customer service capabilities

Top Bank Solves AI Challenges with AI21



Discover the real impact of custom workflows, private deployment, and expert support in this exclusive video.



# Key Learnings for Enterprise Leaders

## Success Principles

### Security First

- Private deployment crucial for sensitive data
- Compliance integration from day one

### Customization Matters

- Industry-specific model tuning
- Use case optimization

### Partnership Value

- Expert guidance crucial
- Long-term collaboration benefits

### Implementation Guidelines

1. Begin with clear security and compliance requirements
2. Prioritize use cases based on business impact
3. Build scalable infrastructure from the start
4. Ensure strong change management practices
5. Maintain flexibility for future expansion

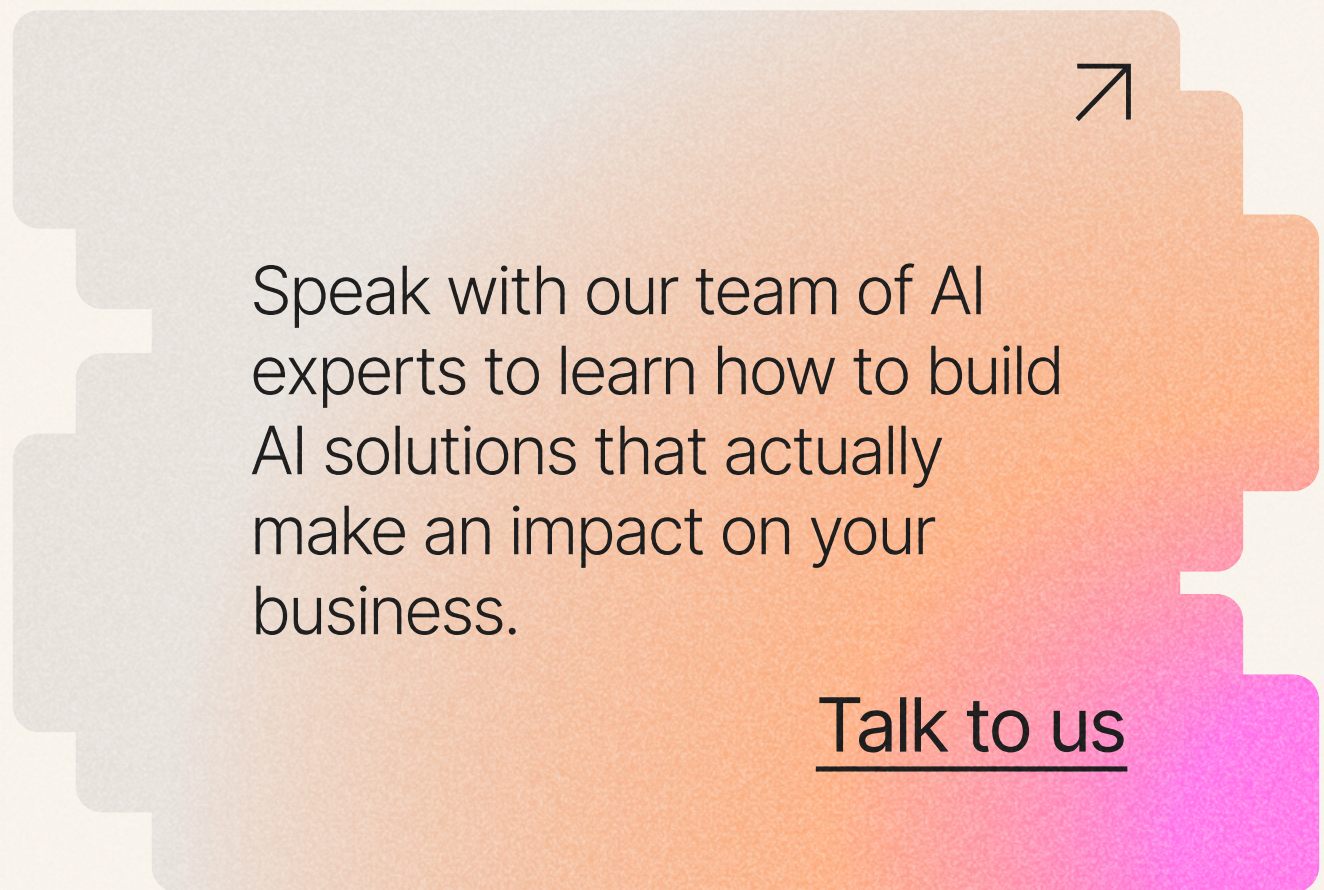
## Future Outlook

Despite having strong internal AI capabilities, the bank identified specific expertise gaps in private AI deployment.

They selected an implementation partner with specialized experience in enterprise-scale language models and security-first architectures. This collaboration complemented their internal teams' knowledge, particularly in areas such as model customization, security architecture, and deployment optimization.

### This partnership positioned the bank to:

- Expand AI capabilities across additional business units
- Develop new use cases leveraging existing infrastructure
- Continue optimizing model performance
- Lead in secure AI innovation



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