

OSF | DIGITAL

Enabling AI-Driven Transformation:

The Power of MuleSoft,
Data Cloud, and Agentforce

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Executive Summary

In 2025, businesses are under increasing pressure to integrate systems, leverage AI, and deliver real-time, connected experiences across platforms.

MuleSoft, combined with Salesforce Data Cloud and Agentforce, is playing a critical role in this transformation.

This whitepaper explores how MuleSoft is evolving to meet new demands for composability, AI integration, and multi-cloud orchestration, while addressing persistent challenges around integration complexity, data quality, and legacy modernization. We also highlight how MuleSoft's integration capabilities extend the reach of Salesforce's Agentforce platform, empowering autonomous AI agents to act securely and intelligently across the enterprise. Together, these technologies enable organizations to build scalable, future-ready architectures that support AI-driven business models, drive operational efficiency, and deliver superior customer experiences.



Key Trends Shaping MuleSoft in 2025 and Beyond

MuleSoft is evolving to meet a new set of demands: faster innovation, deeper AI integration, and a need for more modular, composable systems. In 2025 and beyond, five major trends are influencing how organizations use MuleSoft to drive operational agility, unify data, and power intelligent automation.

Composable Architecture and API-Led Integration

MuleSoft is moving beyond traditional API-led connectivity toward composable architecture, emphasizing modular, reusable components that enable greater agility and flexibility.

This shift aligns with the broader industry trend of replacing monolithic systems with microservices and composable solutions, allowing organizations to innovate and scale more efficiently.

AI and Automation Integration

AI adoption is accelerating rapidly. According to [Salesforce](#), 94% of IT decision-makers plan to implement autonomous agents within the next two years. MuleSoft is embedding AI capabilities directly into its integration layer, introducing features like the [AI Chain Connector](#) to seamlessly integrate AI services into workflows. Low-code and no-code tools further enable non-technical teams to create automations. By treating integration as the foundation for scalable AI, MuleSoft ensures businesses can deploy AI quickly, securely, and at enterprise scale.

Unified API Management and Enhanced Security

With the rise of decentralized architectures, API security and lifecycle management are more critical than ever. MuleSoft's unified API management capabilities—OAuth, JWT, mutual TLS, and enhanced monitoring—give enterprises the tools to protect, govern, and optimize their growing API ecosystems.



Cloud-Native and Multi-Cloud Support

Recent updates, such as [CloudHub 2.0](#), have improved MuleSoft's cloud capabilities, offering unified interfaces for deployment, enhanced scalability, and robust security. Enterprises can connect Salesforce, AWS, Azure, and on-premises systems under a single integration framework, maintaining flexibility and control at scale.

Ecosystem Enablement and Third-Party Collaboration

API marketplaces and external collaboration are becoming more important, with [91% of organizations seeing value in working with third parties](#) to maximize API ROI. MuleSoft is helping businesses maximize the value of their APIs by supporting third-party collaboration, API marketplaces, and ecosystem enablement—making APIs more discoverable, reusable, and monetizable.



Overcoming Key Challenges for MuleSoft Users

While MuleSoft plays a critical role in enabling organizations to embrace digital transformation, several challenges persist in integrating its solutions effectively. These hurdles impact MuleSoft's users and its own growth, especially as the company works to align with broader trends in the industry.

Persistent Integration Hurdles

Despite significant technological advances, integration remains a key barrier. [95% of organizations face challenges integrating AI](#) into existing processes, and 80% cite data integration as their most significant obstacle. Data silos, legacy systems, and application sprawl (with enterprises averaging over 897 applications, but only [29% integrated](#)) hinder digital transformation and AI adoption.

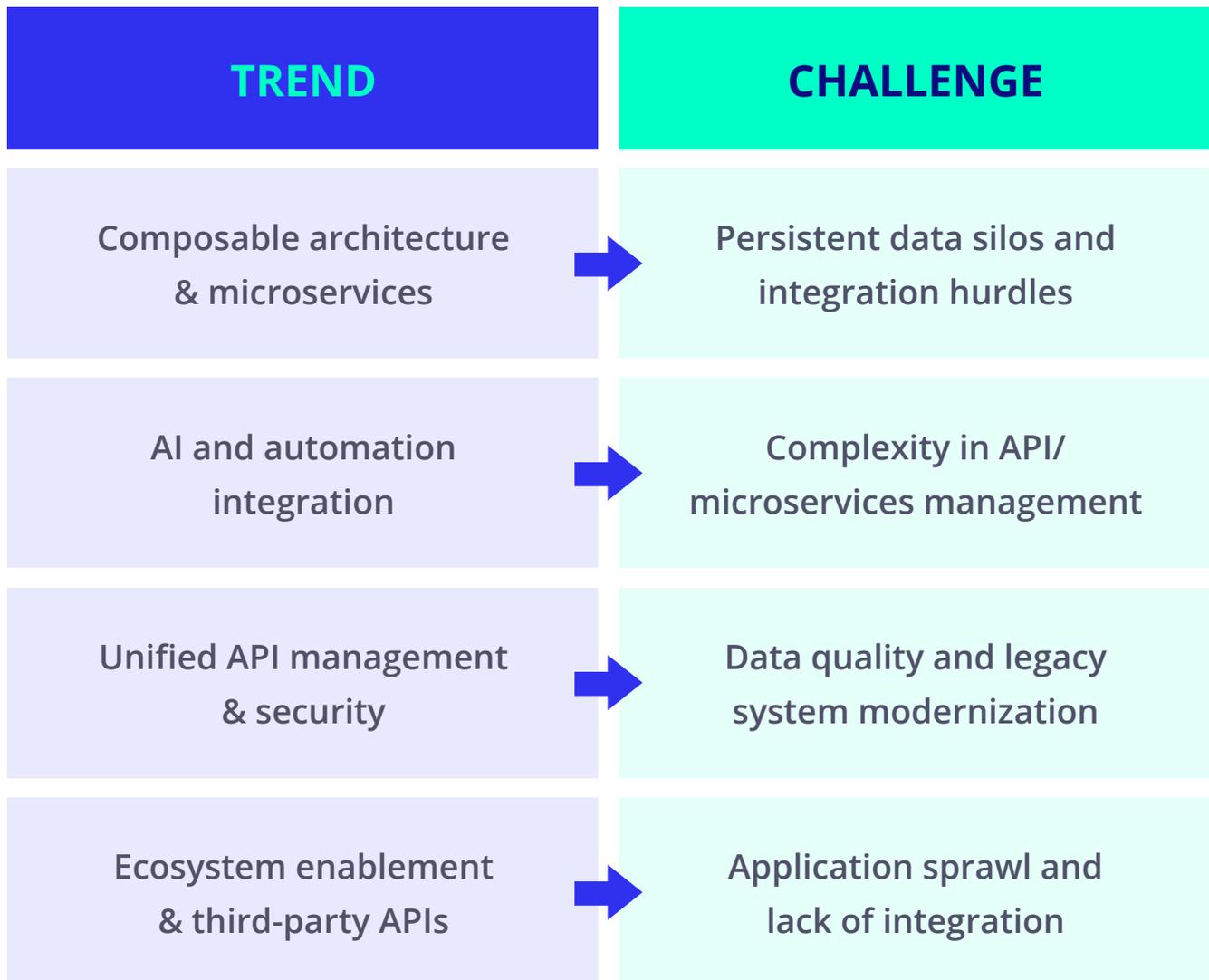
Complexity of API and Microservices Management

As organizations increasingly adopt API-led architectures and microservices, managing these systems becomes more complex. Ensuring robust governance, versioning, security, and performance management is crucial, yet the sheer volume of APIs and microservices can overwhelm even the most advanced integration platforms.

Data Quality and Legacy Modernization

AI and automation initiatives depend on high-quality, well-structured data. Many organizations struggle with legacy systems and inconsistent data, making integration and modernization efforts more difficult.

Addressing these issues through application rationalization and modernization is essential to creating the foundation for successful AI and automation adoption. Without these updates, the value of MuleSoft's integrations can be limited by the quality of the underlying data.



While MuleSoft is positioned to drive digital transformation, overcoming these challenges is essential for maintaining its role as a leader in the API integration space. Addressing issues like integration hurdles, API management complexity, and legacy system modernization will be key to MuleSoft's continued success in supporting AI, automation, and composable architectures across industries.



Enhancing Data Integrity with MuleSoft and Data Cloud

MuleSoft, in combination with Salesforce Data Cloud, provides organizations with a robust solution to unify, activate, and maximize the value of data across on-premise, cloud, and third-party systems. MuleSoft serves as the integration backbone, enabling seamless data flow from various sources into Data Cloud, Salesforce's hyperscale data platform.

- **On-Premise and Legacy Integration**

MuleSoft enables secure, real-time data ingestion from legacy systems (e.g., core banking, EMRs, mainframes) into Data Cloud, eliminating data silos and laying a solid foundation for advanced analytics and AI.

- **Transactional and Real-Time Data**

MuleSoft ensures high-volume, sensitive transactional data (e.g., HR, POS, ERP) flows securely and accurately into Data Cloud, with built-in features for queuing, error handling, and security.

- **Unstructured Data Handling:**

Through tools like [Intelligent Document Processing \(IDP\)](#) and MuleSoft Direct for Data Cloud, unstructured data (documents, images, knowledge bases) is classified and ingested into Data Cloud's vector database, enabling AI-driven workflows.

- **Data Activation:**

MuleSoft not only ingests data but also enables Data Cloud to trigger actions and automations across external systems, supporting real-time business processes and AI agent orchestration.



Transforming Business with Real-Time Data and AI-Driven Insights

The integration of MuleSoft and Salesforce Data Cloud delivers transformative business outcomes by enabling organizations to harness the full potential of their data. With a unified, real-time data foundation, businesses can drive innovation, improve operational efficiencies, and elevate customer experiences.



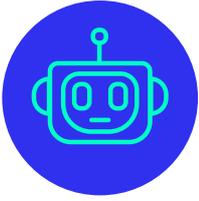
Unified Customer 360

By consolidating data from disparate systems, businesses achieve a comprehensive and real-time view of their customers, which enhances personalization and decision-making. This holistic customer profile enables better-targeted marketing campaigns, more accurate sales forecasting, and improved customer service.



Operational Efficiency

MuleSoft's real-time data synchronization and streamlined processes help organizations automate workflows, reduce manual intervention, and cut down on errors. By ensuring data flows seamlessly between systems, organizations can eliminate bottlenecks and accelerate time-to-market for new products or services.



AI Readiness

A unified, high-quality data foundation is crucial for the effective use of AI and automation. Data Cloud provides the data infrastructure needed for training AI models, while MuleSoft integrates the necessary data sources, allowing organizations to implement AI agents that can drive actionable insights, automate repetitive tasks, and enhance decision-making across departments. This directly supports Salesforce's Agentforce platform, empowering businesses to build smarter, more efficient operations.



Real-World Impact: How MuleSoft and Data Cloud Empower Organizations

Use Case	Description	Example
Ingesting On-Premise Data	Connect legacy systems to Data Cloud for a unified view	A bank integrates core banking data for personalized investment offers
Real-Time Data Synchronization	Ensure data is up-to-date across all platforms	Financial transactions update instantly across systems
Unifying Unstructured Data	Extract and classify data from documents, images, and knowledge sources	Healthcare organizations consolidate EHR, wearable, and feedback data for analytics
Activating Data and Insights	Trigger actions in external systems based on Data Cloud insights	Automated marketing campaigns or inventory adjustments
Partner and Vendor Integration	Facilitate smooth data exchange with external partners and vendors	Compliance management and regulatory reporting

Unlock Success: When MuleSoft and Data Cloud are the Right Fit for Your Business

MuleSoft and Data Cloud together provide a comprehensive solution for businesses looking to integrate, transform, and leverage their data efficiently. But when exactly should you use MuleSoft with Data Cloud to maximize its full potential? Here are the key scenarios where MuleSoft takes your Data Cloud experience to the next level.



1 When Pre-Built Connectors are Insufficient and Complex Integration Logic is Required

Pre-built connectors can be useful for standard integrations, but when business processes require unique or complex workflows, MuleSoft provides the flexibility to build custom integration logic. This allows organizations to design tailored data flows, handle intricate business rules, and orchestrate system interactions that go beyond what pre-built connectors offer, ensuring a seamless and optimized integration process for advanced use cases.

2 For Integrating Legacy or On-Premise Systems with Cloud Platforms

MuleSoft is invaluable for connecting legacy or on-premise systems to modern cloud platforms like Data Cloud. Many organizations continue to rely on older systems for critical functions, and MuleSoft bridges the gap by enabling secure data transfer from these traditional systems to the cloud. This ensures that organizations can modernize their data infrastructure without abandoning legacy systems, creating a unified data ecosystem.

3 When Advanced Data Transformation, Filtering, or Business Logic is Needed Before Data Reaches Data Cloud

MuleSoft excels in transforming, filtering, and applying business logic to data before it reaches Data Cloud. Organizations can pre-process data to meet specific quality standards, normalize formats, or enrich it with additional information, ensuring that only accurate and actionable data is passed on for analytics or AI-driven insights. This capability improves the quality of data and maximizes its usefulness in Data Cloud.



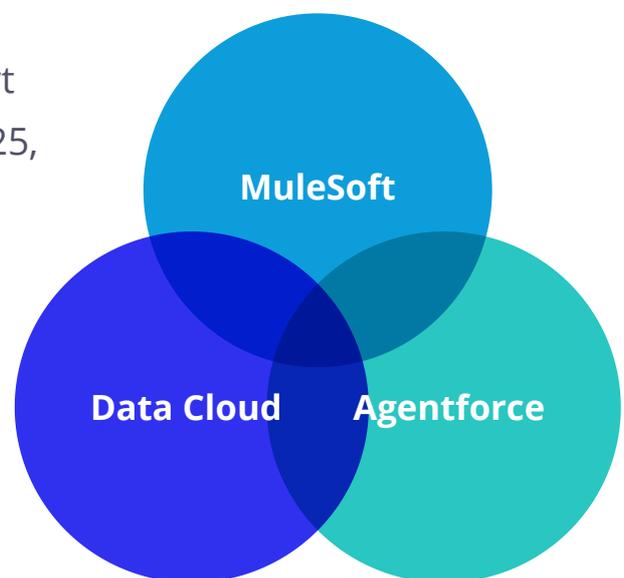
4 To Activate Insights and Automate Actions Across Multiple External Systems

Once data is unified and analyzed in Data Cloud, MuleSoft helps activate those insights by triggering actions across multiple external systems. For example, MuleSoft can automatically initiate workflows like updating inventory, sending notifications, or adjusting customer records based on data-driven insights, ensuring real-time responsiveness and enhancing operational efficiency while reducing manual intervention.

Integrating MuleSoft, Data Cloud, and Agentforce

As AI becomes an increasingly critical part of digital transformation strategies in 2025, businesses are looking for solutions that can drive autonomous action across complex, multi-cloud environments. Agentforce is Salesforce's suite of autonomous AI agents designed to automate business processes, enhance decision-making, and improve customer service.

These agents can retrieve and process data, automate tasks like order management and claims processing, and collaborate with human agents when necessary.



How Agentforce Works With Data Cloud and MuleSoft

Data-Driven AI Agents

Agentforce relies on Data Cloud as its data foundation, ensuring that agents have access to unified, real-time information from across the enterprise. This enables them to make informed decisions and take contextually relevant actions.

Integration with External Systems

MuleSoft extends Agentforce's capabilities by enabling seamless interaction with data and processes across both Salesforce and non-Salesforce environments. This integration supports multi-cloud and hybrid architectures, ensuring that AI agents can trigger actions and retrieve information from any system, wherever it resides.

Multi-Agent Systems

Organizations can deploy multiple specialized AI agents—for example, for customer support, compliance, or logistics—that work together to manage complex, cross-functional tasks. These agents leverage Data Cloud for real-time context and MuleSoft for cross-platform connectivity, creating end-to-end workflows that span multiple systems and clouds.

By combining Agentforce's autonomous AI capabilities with MuleSoft's integration power and Data Cloud's unified insights, **organizations can unlock entirely new possibilities for automation across multiple cloud environments**. The following scenarios illustrate how Agentforce enables seamless, intelligent workflows that span diverse platforms and systems.

Cross-Cloud Orchestration

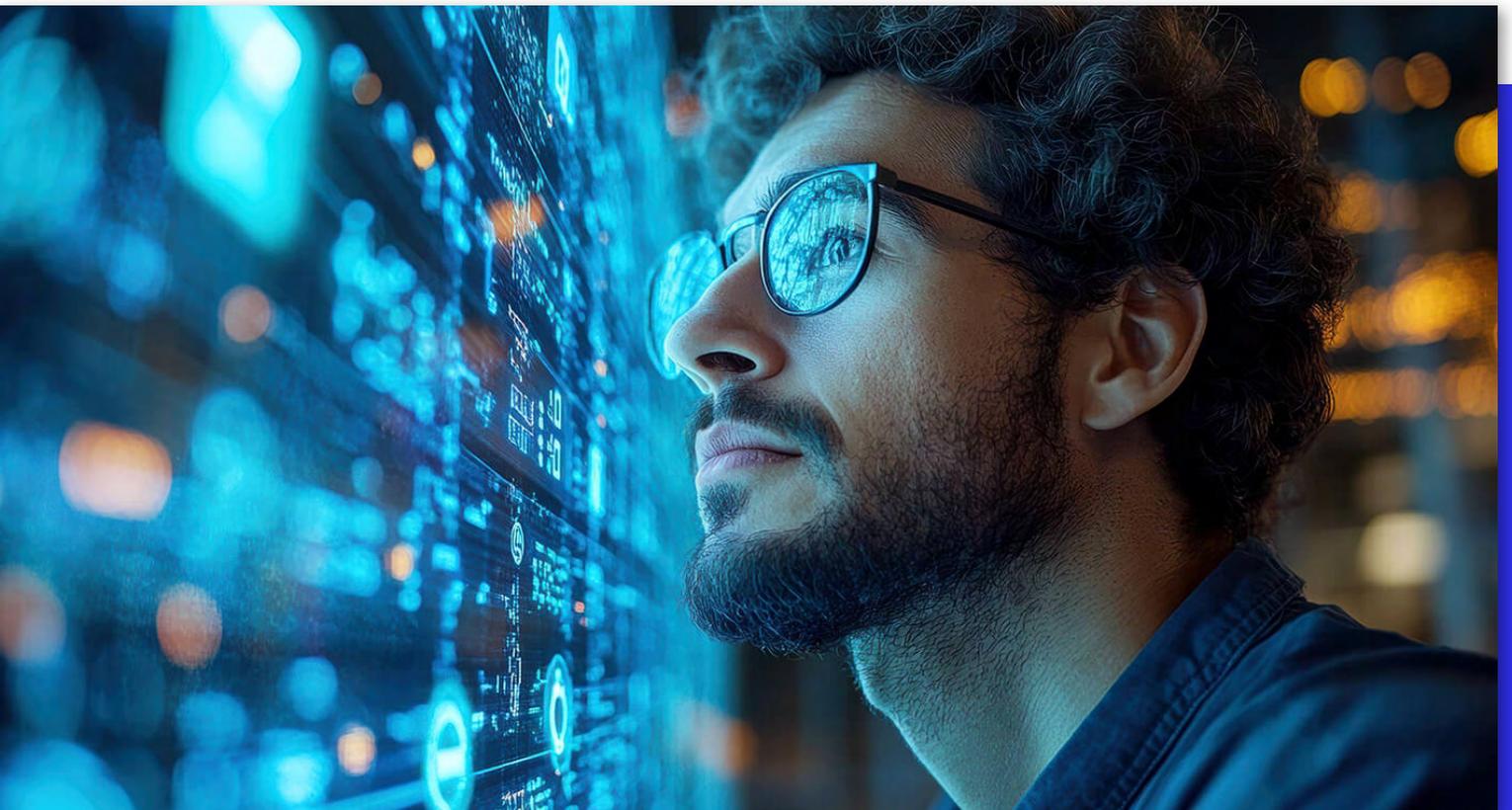
Agentforce agents can coordinate processes that span Salesforce, AWS, Google Cloud, and other platforms. MuleSoft APIs bridge data and actions across these systems, enabling true multi-cloud orchestration.

Autonomous Workflows

For example, a customer support agent might access order data from an ERP system hosted on AWS, retrieve shipping status from a logistics platform on Azure, and pull customer history from Salesforce—all unified through Data Cloud and orchestrated by Agentforce. This enables agents to resolve cases proactively, without human intervention.

Scalable AI Automation

Organizations can deploy multi-agent systems to manage complex initiatives such as product launches, marketing campaigns, or supply chain optimizations. Each agent handles specialized subtasks while collaborating through Data Cloud insights and MuleSoft integrations, enabling faster, more coordinated execution.



Transformative Use Cases: Agentforce and MuleSoft in Action

[MuleSoft plays a critical role in expanding the reach and impact of Agentforce](#), enabling AI agents to securely connect, access, and act on data and processes both within Salesforce and across external systems. Through these integrations, organizations can deploy intelligent automation across a wide range of complex workflows.

Key Use Cases Supported by MuleSoft

Use Case	Description
Order Management	Automate and synchronize order processing across platforms
Transaction Disputes	Streamline dispute resolution with integrated data and workflows
Prior Authorization	Accelerate healthcare authorizations by connecting payers and providers
Insurance Claims	Automate claims intake, validation, and updates
CRM Data Enrichment	Retrieve and update customer data from multiple sources
Workflow Automation	Build low-code, cross-system workflows for business teams
API Orchestration	Expose and manage APIs for agent-driven actions
Secure Data Sharing	Govern and secure all agent interactions with external systems
Automated Communications	Trigger emails and notifications based on agent activities
Real-Time Actions	Enable agents to act on up-to-date information from any system

- **Order Management Automation**

MuleSoft integrates external order management systems with Salesforce Service Cloud, allowing Agentforce to automate order processing, status updates, and fulfillment actions across multiple platforms.

- **Transaction Dispute Resolution**

With MuleSoft integrations, Agentforce can access transaction data from financial or ERP systems, automate the collection of supporting information, and streamline the dispute resolution process.

- **Prior Authorization in Healthcare**

MuleSoft connects healthcare systems and payers, enabling Agentforce to automate and accelerate the prior authorization process by gathering required data, submitting requests, and tracking approvals in real time.

- **Insurance Claims Management**

By integrating claims management platforms and third-party data sources, MuleSoft enables Agentforce to automate claims intake, validation, and status updates, improving operational efficiency and customer experience.

- **CRM Data Retrieval and Enrichment**

MuleSoft allows Agentforce to pull and update customer data from external CRMs, marketing platforms, and data warehouses, ensuring agents operate with a complete, real-time view of customer information.

● **Workflow Automation Across Business Systems**

Using MuleSoft for Flow, business teams can build low-code workflows that enable Agentforce to trigger actions across systems like NetSuite, Jira, HRMS, and ticketing tools, minimizing manual work and reducing IT dependencies.

● **Multi-System API Orchestration**

MuleSoft's API Catalog and Topic Center allow developers to expose, manage, and orchestrate APIs from Salesforce, MuleSoft, Heroku, and third-party systems, making them readily available for Agentforce to consume and act upon.

● **Secure, Governed Data Sharing**

MuleSoft enforces governance and security policies, ensuring all Agentforce interactions with external systems comply with enterprise data protection and regulatory standards.

● **Automated Customer Communications**

Through MuleSoft integrations, Agentforce can automate customer communications such as sales emails, notifications, and service updates, triggered by events across any connected system.

● **Real-Time Data-Driven Actions**

MuleSoft surfaces real-time data from core business systems, empowering Agentforce to make informed decisions and autonomously act with greater speed and agility.

How OSF Digital Can Help: Building an AI-Ready Enterprise with MuleSoft

At OSF Digital, we empower businesses to unlock the full potential of Agentforce and MuleSoft technologies, driving innovation and operational efficiency across their operations. By leveraging MuleSoft, Data Cloud, and Agentforce, we lay the foundation for AI-driven business transformation.

By enabling seamless data integration, secure automation, and cross-cloud orchestration, we ensure your business can break down silos, improve decision-making, and automate complex processes at scale. As AI continues to reshape industries, organizations that embrace integrated, composable architectures powered by MuleSoft are positioned to innovate, scale, and lead in the digital economy. In today's fast-evolving business landscape, having a connected, intelligent enterprise isn't just an advantage—it's a strategic necessity.

[Contact us](#) to explore how OSF Digital can help you harness the power of Agentforce and MuleSoft to become an AI-driven enterprise.

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OSF Digital is a global leader in digital transformation, specializing in Salesforce solutions that drive operational efficiency and business growth. With expertise in AI and composable architectures, OSF Digital empowers businesses to create seamless, future-ready customer experiences. Leveraging data-driven insights, OSF helps clients enhance performance, optimize processes, and scale for success. From innovative commerce solutions to managed services, OSF Digital is committed to helping companies maximize their digital investments and achieve measurable business outcomes.

[Contact us to learn more](#)

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