The State of API Management: Challenges and Opportunities

By Boomi

APIs have become the backbone of digital transformation, enabling seamless integration, innovation, and automation across industries. They have evolved from tools of connectivity into strategic assets that drive growth, scalability, and competitive advantage. However, as API adoption accelerates, the complexity of managing these assets has also grown. To transform APIs into strategic assets that drive innovation and growth, enterprises need a way to address these challenges comprehensively.

With the rapid proliferation of APIs, many enterprises face what is often referred to as API sprawl. This occurs when hundreds or even thousands of APIs are developed across fragmented teams and processes, often without centralized oversight. The lack of a clear inventory creates inefficiencies, undermines governance, and leaves organizations vulnerable to risks.

Adding to the challenge are shadow APIs — undocumented and unmanaged interfaces that exist outside IT governance. Nearly half of organizations surveyed for a [2024 API Security report](#) stated that they did not have a way to discover APIs across their organization. These hidden assets frequently become points of vulnerability, exposing organizations to cyberattacks and compliance failures.

Another layer of complexity arises from the use of multi-gateway environments. To meet diverse operational needs and geographic demands, many organizations adopt multiple API gateways from different vendors. While this strategy offers flexibility, it also introduces significant operational challenges. Managing policies, standardizing governance, and ensuring seamless interoperability across gateways becomes increasingly difficult as enterprises scale, often leading to inefficiencies and inconsistent outcomes.

APIs have also grown in importance as enablers of artificial intelligence (AI) systems. These interfaces act as the connective tissue for AI models, facilitating the data and processes that power their operation. Companies that fail to discover, manage, promote, and secure their API investments will find their AI initiatives thwarted by a lack of data, poor data quality, security risks, and other challenges.

This dual role — as operational workhorses and AI interfaces — magnifies the need for advanced API management solutions capable of handling scalability, security, and intelligence.

Simultaneously, organizations are seeking ways to quantify the value APIs bring to their operations, customer experiences, and revenue streams. However, achieving these insights requires sophisticated tools that align API performance with business outcomes.

The global nature of modern enterprises adds yet another challenge to API management. Organizations must manage traffic across multiple regions, comply with local regulations, and ensure high availability while balancing performance. These complexities demand solutions that can scale globally without compromising on security, compliance, or user experience.

How Boomi API Management Addresses Today's Challenges

Boomi's [API Management offering](#) is designed to address these challenges comprehensively, enabling enterprises to transform APIs into strategic assets that drive innovation and growth. To combat API sprawl, Boomi provides tools for automated discovery and centralized inventory management, giving organizations complete visibility into their API ecosystems. This centralized approach ensures that APIs — whether shadow, legacy, or managed — are cataloged, monitored, and controlled, reducing risks and improving efficiency.

Governance and security are cornerstones of the [Boomi Enterprise Platform](#), which enforces consistent policies across gateways and platforms through its [API Control Plane](#). Features like API scoring and usage control streamline governance, enhance compliance, and elevate the developer experience by ensuring adherence to style guides and best practices. By addressing governance at a higher level, Boomi simplifies API management while maintaining robust security measures.

Boomi also takes a federated approach to managing multi-gateway environments, allowing enterprises to seamlessly oversee multiple API gateways without forcing migration to a single platform.

By integrating with leading gateway technologies and offering policy emulation and translation, Boomi ensures operational flexibility while providing a unified management experience. This approach enables organizations to scale effectively, leveraging the strengths of diverse gateway solutions without sacrificing control — and allowing them to continue working with the gateways in which they have already invested.

To enhance operational efficiency, Boomi incorporates AI-driven innovation into its platform. Tools like Boomi API Documentation agent, which autonomously generates technical and business documentation from API definitions, make API management intuitive and accessible even for teams with varying levels of technical expertise. These features not only accelerate the API lifecycle but also empower developers to focus on innovation.

Boomi Cloud API Management further supports global scalability, offering enterprise-grade performance with minimal operational overhead. The platform manages massive transaction volumes and ensures reliability, even during traffic spikes, while supporting real-time data exchange across distributed environments. By providing robust business value analytics, Boomi enables organizations to measure the performance and impact of their APIs, aligning them with broader strategic goals.

The Boomi Advantage: A Unified Enterprise Platform

What truly sets Boomi API Management apart is its integration within the broader Boomi Enterprise Platform. This unified approach connects API management with enterprise integration, automation, data management, and AI capabilities, creating a seamless ecosystem that drives measurable business outcomes. APIs are no longer isolated entities but integral components of workflows, data pipelines, and business processes. By managing these interdependencies, Boomi ensures that APIs contribute to unified and efficient operations.

Unlike vendors that narrowly focus on gateways or isolated governance tools, Boomi delivers an interconnected platform that eliminates silos and fosters collaboration. This tight integration transforms APIs from technical connectors into strategic assets that amplify innovation and enhance scalability. With features like data orchestration, master data management, and AI-driven insights, Boomi empowers organizations to maximize their APIs' potential within a cohesive, enterprise-wide framework.

Boomi's federated approach ensures flexibility across deployment models, from cloud to hybrid to on-premises, prioritizing interoperability and vendor neutrality. This adaptability is a direct result of its platform-centric design, which addresses the evolving needs of modern enterprises without introducing unnecessary complexity. By providing an end-to-end solution, Boomi eliminates the need to piece together disparate tools, reducing operational overhead and ensuring a seamless user experience.

Through its holistic API management solution, Boomi empowers organizations to navigate the complexities of modern API ecosystems with confidence. By combining governance, scalability, and AI-driven innovation within a unified platform, Boomi positions APIs as catalysts for digital transformation, driving growth and ensuring resilience in an increasingly interconnected world.

To learn more about Boomi API Management, visit our APIM product pages.