Intellyx White Paper

Fiorano Software:

API Management for Everyone

Jason Bloomberg

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I worked with Fiorano Software back in the first-generation SOA days, over a decade ago. This scrappy Palo Alto and Bengaluru-based vendor competed successfully in the Enterprise Service Bus (ESB) market with the middleware behemoths of the time, including IBM, Oracle, Software AG WebMethods, and TIBCO, to name a few. While other smaller vendors were either acquired or dropped off the radar, the secret to Fiorano's survival was a critical architectural decision that differentiated their ESB in fundamental ways.

Today people don't like talking about ESBs anymore. Instead, the buzz is around cloud, big data, the application programming interface (API) economy, and digital transformation. Application integration is still a core enterprise IT competency, of course, but much of what we're integrating and how we're integrating it has shifted from the back office to the omnichannel digital world.

And here's Fiorano, with one foot still in the traditional ESB space, especially in the developing world where even basic integration is a challenge – and the other foot squarely in the modern digital world. Now they're launching an API management tool into a reasonably mature market.

On first glance, this move might seem rather foolish, as this market is already crowded, with each of the aforementioned behemoths participating, as well as CA, Axway, Intel, SOA Software, Apigee, WSO2, MuleSoft, and several others, who have all been hammering out the details for a few years now.

But there's method to Fiorano's madness. That critical architectural decision that enabled them to compete a dozen years ago has turned out to be extraordinarily prescient, as it separates their approach to API management from the pack as both more cloud-friendly as well as user-friendly than the rest.

Peer-to-Peer with Queues

The secret to Fiorano's product successes is its unique queue-based, peer-to-peer architecture. Queuing technology, of course, has been with us for decades, but traditionally provided reliability only to point-to-point integrations.

The rise of ESBs in the 2000s saw many vendors building centralized queue-based buses that essentially followed a hub and spoke topology. To scale such architectures and avoid single points of failure required various complex (read: expensive and proprietary) machinations that limited the cost effectiveness and flexibility of the approach.

By building a peer-to-peer architecture, in contrast, Fiorano never relied on a single centralized server to run their bus. Instead, the platform would spawn peers as needed that knew how to interact with each other directly, thus avoiding the central chokepoint inherent to competitors' architectures. The queues connecting the peers to each other as well as to other endpoints provided the reliability and fault tolerance to the architecture.

The result is an approach that is inherently cloud-friendly – even though the minds at Fiorano built it before the cloud hit the marketplace. Each peer can go on premise or in a cloud instance, and thus scale elastically with the cloud.

Today, as the cloud becomes a supporting player in the digital world and user preferences drive an explosion of technology touchpoints, Fiorano has managed to put in place the underlying technology that now supports the API management needs of modern digital environments.

The API Management Story

I also covered the API Management market starting in 2002, when vendors called it the Web Services Management market. Then it transformed into SOA Management, then Runtime SOA Governance, and now API Management (although Gartner awkwardly uses the term *Application Services Governance*).

After all, Web Services are a type of API, and managing them is an aspect of governance. Today, we'd rather refer to services as APIs in any case, as our endpoints are more likely to be RESTful, HTTP-based interfaces than SOAP-based Web Services.

This rather convoluted evolutionary path for the API Management market explains why there are so many players – and why many of them are the old guard incumbents. But it also indicates that many of the products in the market are likely to have older technology under the covers, perhaps better suited for first-generation SOA technologies than the modern cloud/digital world.

Fiorano, however, has avoided this trap because of their cloud/digital friendly architecture, as the diagram below illustrates. At the heart of the Fiorano API Management Architecture are both the Gateway Servers, which handle the run time management tasks, as well as the Management Servers, tasked with supporting policy creation, publication, and deployment.

Both types of servers take advantage of Fiorano's peer-to-peer architecture, allowing cloud-based elasticity and fault tolerance, the flexibility to deploy on-premise or in the cloud, as well as unlimited linear scalability.
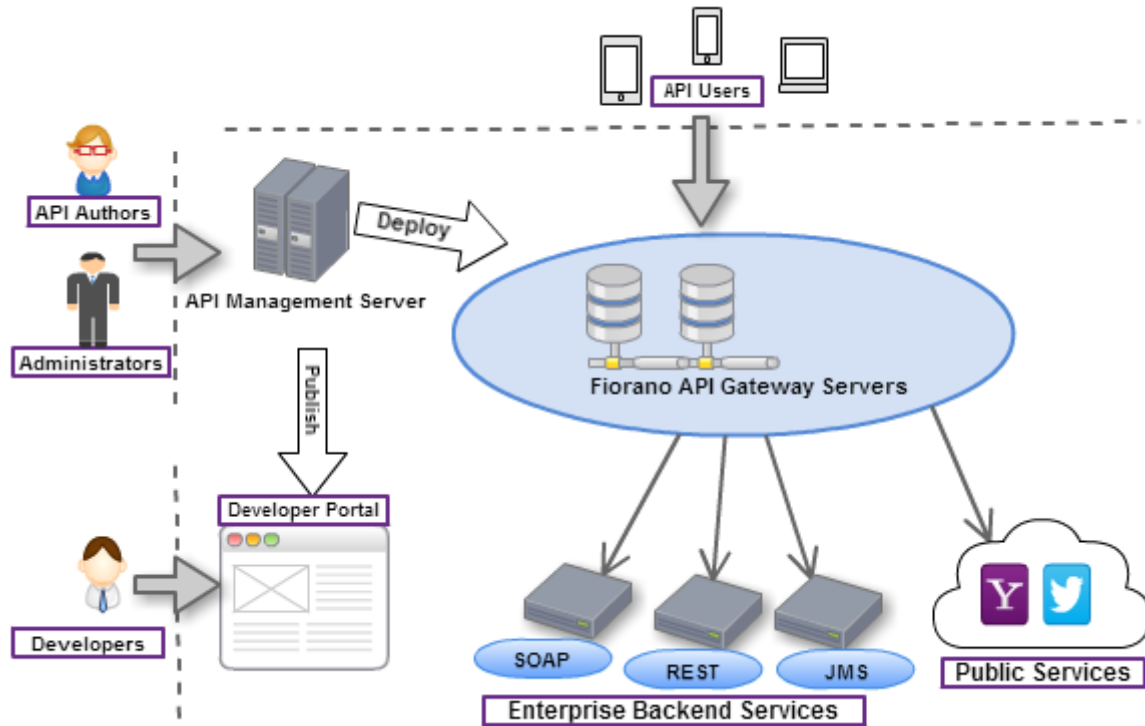
Fiorano API Management Architecture (Source: Fiorano Software)

The Intellyx Take

Fiorano's cloud-friendliness is straightforward, but their digital-friendliness is more subtle. Today, the word *digital* includes *customer-driven*, as human behavior and preferences drive technology use and selection, which in turn drive how companies must interact with their customers. Traditionally, APIs have only played an indirect supporting role in this digital world, as they have been part of the nuts-and-bolts technical landscape.

Today, however, the role for the API is shifting, as integration is increasingly likely to involve web and mobile applications and other user-facing technology. As a result, the center of gravity for enterprise integration is also shifting, from back-office middleware to front-office apps.

Fiorano's architecture positions them well for this fundamental shift, as their peer-to-peer architecture pushes the technology to where the users are, and gives them user interfaces they can use – not just technical users, but an increasingly broad range of digital users across the organization and beyond. The APIs that glue everything together aren't your grandparents' Web Services anymore. Welcome to the digital world.

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