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Getnet SEP

A Single Entry Point to Latin America

Revolutionizing E-commerce Payments Across Latin America with Cutting-Edge Technology





Introduction

- Getnet SEP (Single Entry Point), a regional e-commerce API, marks a breakthrough in payment solutions across Latin America, offering a unified, adaptable, and highly secure way for e-commerce businesses in Brazil, Argentina, Mexico, and Chile to manage complex multi-country transactions.
- Getnet SEP's architecture is purpose-built to meet the demands of cross-border e-commerce, combining modular, cloud-native technology with high-performance and PCI-compliant security features that simplify integration and scale seamlessly as transaction volumes grow.

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Section 1: Key Benefits for E-commerce Payments in Latin America



 Unified Integration for Multi-Currency, Multi-Tenant Deployments: Getnet
SEP's single-integration model supports
businesses operating across multiple countries, offering real-time multicurrency processing and adaptable tenant
structures. This unification abstracts the complexity of cross-border payments, enabling smoother, faster onboarding and reducing the need for separate, regionspecific integrations.



- Scalability and High Resilience: Getnet SEP's cloud-native architecture on Azure is optimized for high availability and performance, ensuring that the platform can scale automatically to handle peak demand while maintaining resiliency. This elasticity is vital in handling surges during e-commerce sales periods across Latin American markets, where payment system downtime can significantly impact revenue and customer trust.
- Enhanced Security and PCI Compliance: Getnet SEP is built to the Payment Card Industry Data Security Standard (PCI DSS), using advanced encryption protocols and secure access management. By adhering to these strict compliance requirements, Getnet SEP offers peace of mind for businesses and consumers, reducing fraud risks and protecting sensitive payment information across borders.

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Section 2: The Technology Enabling Getnet SEP Innovation

100% SaaS on Azure Cloud:

- Getnet SEP operates entirely on Microsoft Azure's cloud platform, leveraging Azure's global data centers and advanced networking capabilities to ensure low-latency processing and high availability. Azure's geographic redundancy also supports regulatory requirements for data residency and sovereignty, an essential factor in Latin America's complex regulatory landscape.
- Azure Kubernetes Service (AKS) enables containerized deployment for Getnet SEP's microservices, facilitating rapid scalability and consistent performance. The cloud-native infrastructure is ideal for handling high transaction volumes while allowing Getnet SEP to dynamically allocate resources based on demand, optimizing cost efficiency.

Modular, Microservices Architecture:

 Getnet SEP's microservices architecture enables independent deployment, scaling, and updating of service components, such as payment authorization, fraud detection, and reporting. This modularity not only improves resiliency but also accelerates development cycles, allowing Getnet SEP to introduce updates or enhancements without impacting the entire system.

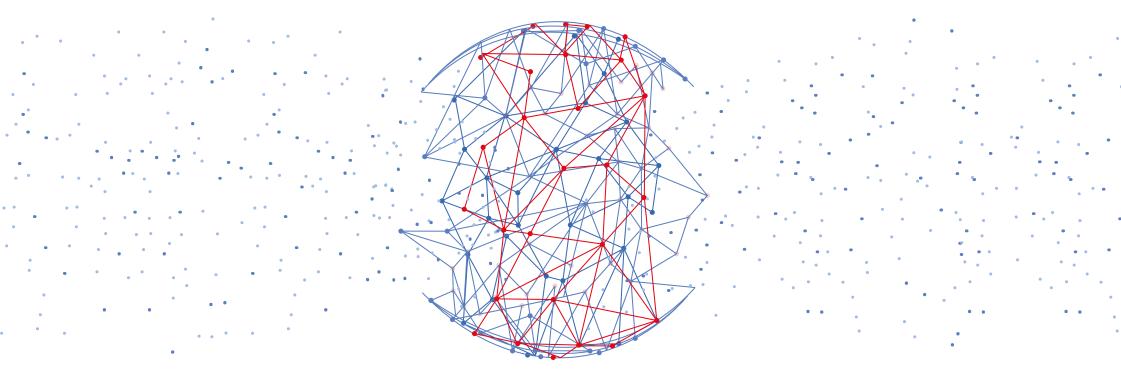


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• By decoupling functionalities into discrete services, Getnet SEP can **maintain high uptime and isolate issues**, a critical feature for e-commerce platforms where downtime can significantly affect revenue.



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Java with Spring Cloud and Node.js:

- Getnet SEP's backend is powered by a mix of Java with Spring Cloud for core processing and Node.js for handling asynchronous tasks and lightweight services. Java's stability and Spring Cloud's ecosystem support robust transaction handling, with faulttolerance capabilities like circuit breakers and distributed tracing.
- Node.js, used for event-driven and real-time processing, handles concurrency effectively, optimizing response times for high-volume, low-latency requirements. This setup ensures that Getnet SEP can maintain high throughput, even under heavy load, providing a seamless experience during peak transaction periods.

NoSQL Database (MongoAtlas):

- The choice of MongoDB Atlas as a NoSQL database **supports Getnet SEP's need for flexible, high-performance data management**. MongoDB's document-based model is ideal for handling varied and evolving data structures in e-commerce, such as customer preferences, transaction metadata, and fraud analytics.
- MongoAtlas enables **real-time data replication across multiple regions**, supporting Getnet SEP's latency and availability requirements. This architecture ensures that data can be read and written quickly, a critical factor for efficient transaction processing across different LATAM countries.

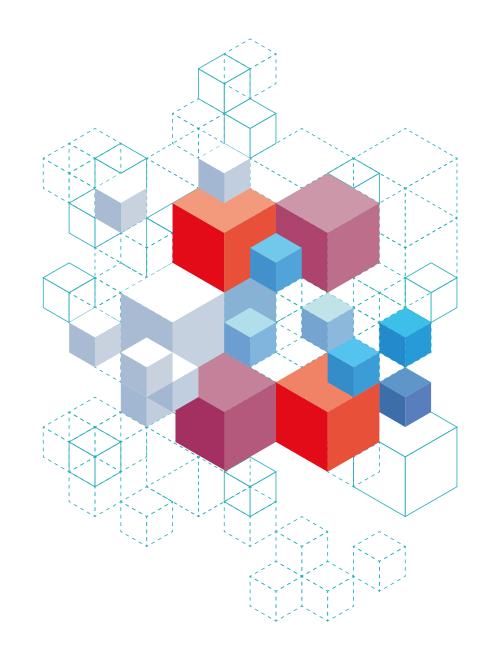
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Azure EventHub and ServiceBus for Event-Driven Communication:

- Getnet SEP's use of Azure EventHub and ServiceBus supports an **event-driven architecture, critical for real-time processing in high-volume e-commerce environments**. EventHub enables Getnet SEP to capture and process transaction events as they happen, ensuring rapid response times and real-time tracking of transaction statuses.
- Azure ServiceBus is used for message queuing, handling asynchronous communication across Getnet SEP's microservices. This setup provides a robust foundation for event-based workflows, enabling Getnet SEP to manage high transaction volumes with minimal latency while reducing bottlenecks.

Azure DevOps, Pipelines, and Sonarqube for CI/CD:

- Getnet SEP's CI/CD pipeline is managed using Azure DevOps, which enables automated code integration, testing, and deployment. By integrating Sonarqube as a security and quality gate, Getnet SEP ensures that only validated and secure code reaches production, reducing vulnerabilities and maintaining high standards for reliability.
- The CI/CD pipeline allows Getnet SEP to implement rapid release cycles with built-in quality checks, enabling the platform to **respond quickly to new requirements or security threats**, which is critical in the fast-evolving landscape of e-commerce payments.



Section 3: Impact on E-commerce Businesses and Consumers in Latin America



Business Benefits:

- Getnet SEP's unified, SaaS-based model allows businesses to streamline their payment processes, removing the complexity of separate integrations for different LATAM regions. With Azure's cloud-native infrastructure, Getnet SEP can dynamically scale to meet demand spikes, reducing the need for businesses to invest in dedicated infrastructure.
- The single-integration model enables **faster go-to-market capabilities**, allowing businesses to rapidly expand into new regions without additional technical overhead. By minimizing operational complexity, Getnet SEP frees businesses to focus on their core e-commerce strategies and customer experience enhancements.

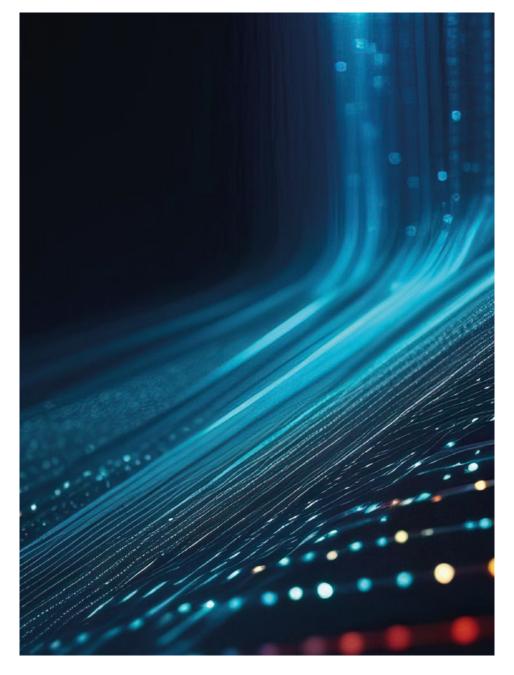


Consumer Benefits:

- For consumers, Getnet SEP provides a **consistent and reliable payment experience across Latin America countries**. With **high resilience and low latency**, users experience smoother checkout flows and faster transaction processing, reducing the likelihood of abandoned carts due to slow payment responses.
- The PCI-compliant architecture instills trust, ensuring that **personal and payment data are safeguarded**, which is essential in a region where consumers are increasingly embracing e-commerce yet remain cautious about data security.

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Conclusion

Getnet SEP is pioneering a new era of e-commerce payments in Latin America, providing a streamlined, secure, and scalable solution built on a robust technological foundation. By leveraging Azure's cloud capabilities, microservices architecture, and advanced development practices, Getnet SEP offers a resilient and efficient payment experience tailored to the unique demands of Latin America.

Looking ahead, Getnet SEP's flexible, event-driven foundation **could support future enhancements**, including AI-driven analytics for fraud detection and personalization, and potential integrations with blockchain for transparency and security. As the e-commerce landscape continues to evolve, Getnet SEP positions itself as a leader in enabling seamless, cross-border digital transactions throughout Latin America.

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