

Moving to the Cloud at Vonage

With Gloo Gateway, the transition to cloud services was simple.







Vonage's journey to optimize its infrastructure began with the acquisition of Nexmo, a business specializing in API-based communication services. Initially, these services ran on SoftLayer's bare metal installations, predominantly utilizing Java services with various web servers.

As part of modernizing its infrastructure, Vonage embarked on a proof-of-concept phase,

exploring various gateway technologies to support its move from SoftLayer to a cloud environment, eventually choosing AWS and Gloo Gateway for their needs.

The Challenges

- Centralized Traffic Management: The existing system, managed by a centralized SRE team using NGINX, was cumbersome. Updating routes, handling traffic, and onboarding new services required centralized changes, slowing down the process.
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- Backward compatibility: The transition required maintaining backward compatibility for legacy services, some of which responded with non-standard error codes.
- Inconsistent scalability and performance: The legacy system struggled with scalability, particularly during traffic spikes from large customers.

We compared a few different gateway vendors, and far and away Solo.io's support during that phase was worlds apart from everybody else, and that's been maintained throughout the last few years of our relationship."

Jonathan Lane

Senior Team Manager at Vonage API Platform

The Solutions

- Oecentralized traffic management: By transitioning to Gloo Gateway, Vonage empowered developers to manage their own routes and traffic, significantly reducing dependency on a centralized SRE team. This shift allowed application service teams to write and manage their routes independently, improving agility.
- Centralized authentication and rate limiting: Vonage centralized authentication processes and implemented consistent rate limiting across services. This ensured uniform handling of credentials and improved customer experience through consistent rate limits.
- Improved backward compatibility: Using transformers within Gloo Gateway, Vonage maintained backward compatibility for older services while introducing more standardized error handling for new services. This dual approach allowed a seamless transition without disrupting existing customer integrations.
 - Gradual migration and testing: Vonage conducted a phased migration, moving services domain by domain and region by region. This approach allowed thorough testing at each stage, minimizing the impact of potential issues and ensuring a smooth transition.
- Enhanced scalability: The team focused on optimizing performance by testing different machine types and configurations, ensuring efficient resource use. They used networkoptimized instances where necessary and implemented preemptive scaling to handle traffic spikes efficiently.
- Operational efficiency: Vonage sought to improve operational processes, including streamlining the route contribution process through a GitOps workflow. They also aimed to automate high-availability and failover setups to reduce manual oversight and potential errors.



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"The most important thing in our choice of Solo.io has been the partnership."

Jonathan Lane Senior Team Manager at Vonage API Platform

The Outcomes

 Improved developer autonomy: Developers gained control over routing and traffic management, leading to faster and more flexible deployments.

 Consistency and reliability:
Centralized authentication and rate limiting ensured consistent customer experiences and enhanced security.

Enhanced performance: Optimized resource allocation and Modernized backward compatibility: Transformers allowed legacy services to function seamlessly while new services adopted standardized error handling, supporting a gradual modernization process.

Support and collaboration:

Vonage highly valued the support and partnership with Solo, which was instrumental during the proof-ofconcept phase and continued

preemptive scaling improved performance and cost-efficiency, particularly during traffic surges. throughout the implementation, ensuring timely resolution of issues and continuous improvements.

What's Next

Vonage aims to further streamline operational processes by improving rollout efficiency, enhancing zero-downtime deployments, and refining the routing contribution workflow. They are also exploring better programmatic solutions for AWS account management and high-availability configurations to ensure seamless service delivery and operational excellence.





Solo.io, the leading application networking company, delivers a service mesh and API platform for Kubernetes, zero trust, and microservices. The components of Gloo Gateway and Gloo Mesh enable enterprise companies to rapidly adopt microservice applications as part of their cloud journey and digital transformation. Solo.io delivers open source solutions, and is a community leader in building the technologies of the future.

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