Megaport

CASE STUDY

Brevo

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Summary: Brevo offers an all-in-one CRM platform with email, SMS, chat, and automation tools to help businesses engage customers more effectively.

Headquarters: Paris, France

Industry: SaaS

Website: www.brevo.com

Brevo, formerly known as Sendinblue, is a French SaaS company founded in 2012 with the mission of helping businesses of all sizes build meaningful customer relationships and achieve sustainable growth. With a strong focus on accessibility and user-centric design, Brevo provides an all-in-one digital platform that simplifies marketing and customer engagement, allowing companies to manage their communications efficiently and effectively.

The Brevo platform combines email marketing, SMS campaigns, marketing automation, transactional emails, and customer relationship management (CRM) into a single, integrated solution. This comprehensive approach allows businesses to centralize their marketing efforts, personalize customer interactions, and automate repetitive tasks, ultimately improving engagement and fostering long-term loyalty.

The platform is particularly popular among small and medium-sized businesses, offering enterprise-grade tools without the complexity or cost typically associated with large-scale software solutions.

Brevo is also committed to ethical business practices and sustainability. The company has earned a **B Corp Certification**, reflecting its dedication to social and environmental responsibility. Through initiatives aimed at reducing its carbon footprint and promoting transparency, Brevo demonstrates that growth and corporate responsibility can go hand in hand.

With a growing global presence, Brevo serves hundreds of thousands of businesses in more than 150 countries. By combining innovative technology, a customer-first approach, and a strong ethical foundation, Brevo empowers organizations to connect with their audiences in meaningful ways, driving both business success and positive societal impact.

KEY POINTS

- Migrated all services from on-premises data centers (colocation) to OVHcloud.
- Closed all physical data center presence to reduce CAPEX and operational overhead.
- Leveraged Megaport Virtual Edge (MVE) to access high-availability Transit IP services and route traffic seamlessly into OVHcloud.
- Maintained flexibility by using MVE in a neutral environment, enabling easy switching or addition of Cloud Service Providers (CSPs) or Transit IP providers via the Megaport Marketplace.
- Reduced provisioning time with API-driven and Terraform-based automation.
- Enabled global expansion and revenue growth using Megaport's worldwide underlay network.

SNAPSHOT

With Brevo's business rapidly expanding, traffic volumes and the complexity of managing network capacity and security have grown significantly. To address these challenges, Brevo's engineers sought a solution that could deliver low-latency, high-bandwidth cloud-to-cloud peering with global service providers via a fully virtualized platform based on Network Functions Virtualization (NFV), while also leveraging Transit IP services to support the high-bandwidth demands of their SaaS platform.

At the same time, Brevo's broader strategy is to eliminate physical footprints, reduce costs associated with colocation, hardware management, and lifecycle operations, and focus its resources on its core mission: providing CRM and mass mailing services.

Brevo also prioritizes flexibility by maintaining the ability to switch CSPs or integrate additional ones into its architecture. This "best-of-breed" approach helps avoid vendor lock-in. The same principle applies to Transit IP providers, which Brevo can use either singularly or in redundancy.

With numerous IP prefixes in PI (Provider Independent) space, Brevo has the ability to manage its own IP reputation. To support this, it must advertise these prefixes to Transit IPs, available via the **Megaport Marketplace** or by bringing its own Transit IP.

Future scalability is also a key focus. Brevo aims to remain future-proof and expand capacity easily, leveraging opex models and MVE to achieve this. Additionally, in scenarios where it may use another cloud provider than OVHcloud, Brevo seeks to ensure the best possible low-latency cloud-to-cloud connectivity.

By partnering with Megaport, Brevo deployed a scalable and replicable solution using MVE appliances and **Infrastructure-as-Code (IaC) tools such as Terraform.** The solution also incorporates Transit IP services to handle high-bandwidth requirements, enabling Brevo to peer efficiently with global service providers.

The result is a streamlined, resilient network that enables fast deployments, simplifies management, and scales seamlessly in line with future growth.

CHALLENGES

High-bandwidth cloud-to-cloud connectivity

Brevo needed a solution capable of sustaining low-latency, high-bandwidth connectivity between clouds. For example, during peak periods such as Black Friday or Christmas, they might increase capacity by leveraging Google Cloud Platform (GCP) services alongside OVHcloud infrastructure. Ensuring seamless cloud-to-cloud performance under these conditions was critical.

Transit IP for high traffic volumes

To support traffic spikes of 15–20 Gbps during peak periods, Brevo required robust and flexible Transit IP services. This was essential to maintain performance and reliability for their SaaS platform while handling massive traffic volumes.

Future-proof and flexible architecture

Brevo needed a solution that would remain future-proof. This included opex-based scalability to increase capacity on demand, the ability to diversify cloud services across multiple providers, and the option to use different Transit IP providers to maximize resilience and flexibility for its fully virtualized architecture.

Automated, cloud-like network management

As the business grew and new services were introduced, Brevo needed a fully automated, cloud-like approach to network deployment and evolution. By leveraging Infrastructure-as-Code (IaC) tools like Terraform, engineers can manage the network in the same way they manage cloud resources, simplifying operations, reducing management time, and ensuring consistent, reliable scaling and configuration across the virtualized infrastructure.

End-to-end network resiliency

Brevo required high resiliency at every layer of the network solution. This included redundancy and failover for the MVE instances themselves, resilient interconnections to CSPs to prevent single points of failure, and robust connectivity to Transit IP providers. Ensuring resilience across all these segments was critical to maintain continuous SaaS availability and high-performance operations under all conditions.

> “We needed seamless, low-latency connectivity across clouds and a network that scales instantly. This solution gave us the flexibility, resilience, and automation to handle massive traffic with confidence.”

Claire Tinard, Platform Engineer — Brevo.

SOLUTION

Automated cloud-native networking with virtualized routing

To overcome these connectivity and scalability challenges, Brevo implemented a software-defined, cloud-native network architecture using Megaport.

MVE is Megaport's NFV service, enabling customers to deploy SD-WAN gateways, virtual routers, and virtual firewalls in minutes. These virtual devices are hosted on Megaport's flexible infrastructure, providing the option to leverage global provider interconnections such as OVHcloud Connect or GCP Interconnect.

Brevo deployed a virtual Point of Presence (PoP) based on two MVE instances hosted in separate data centers, creating a fully virtual architecture. Thanks to Megaport's highly resilient underlay network—both for interconnection to Transit IP providers and CSPs where Brevo is connected, including geo-redundancy across different data centers—this architecture delivers exceptional reliability and performance.

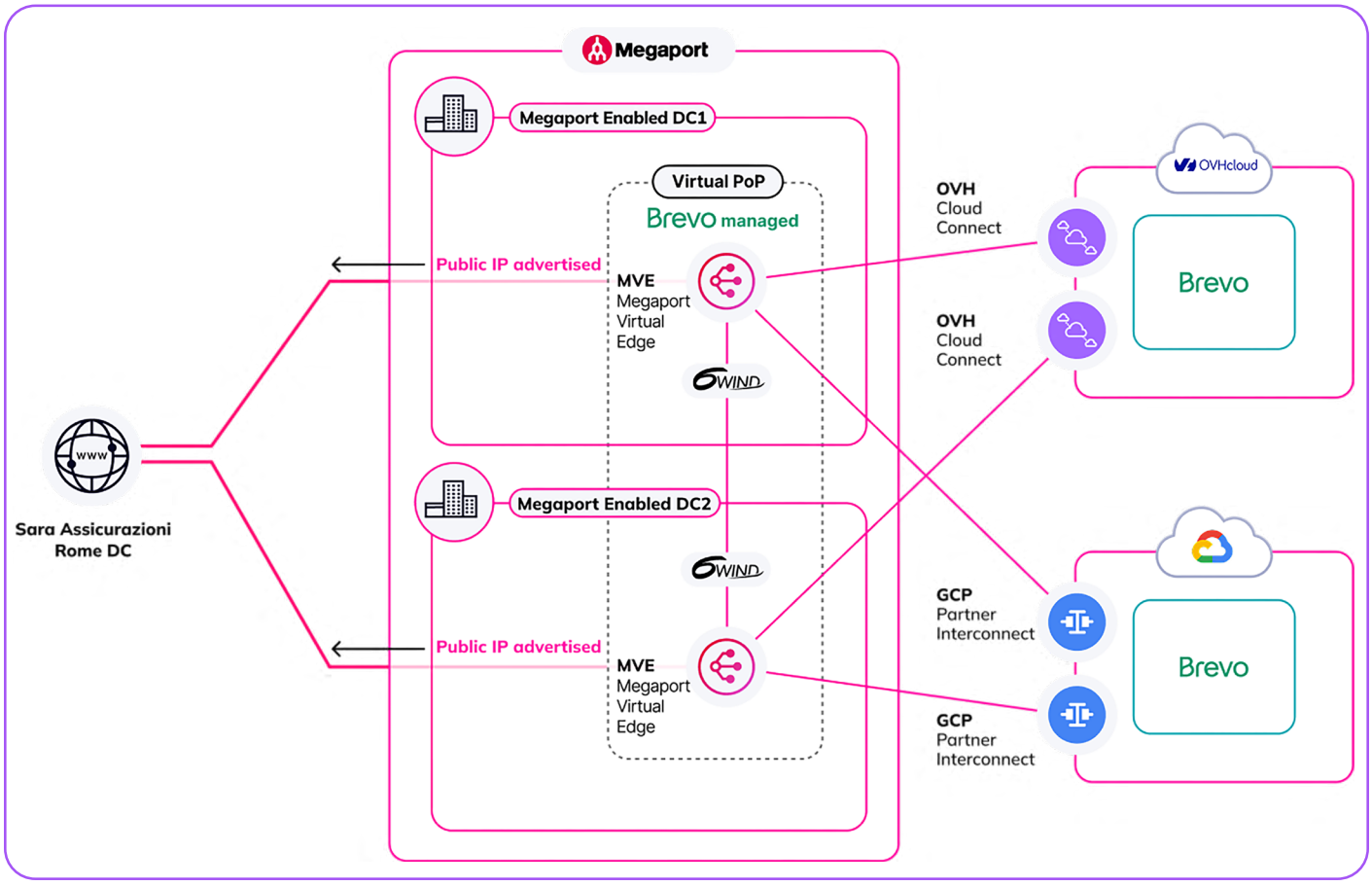
Using MVE, Brevo deployed two 6Wind virtual machines to act as routers, allowing the team to offload all received BGP routes from the service provider and simply announce a default route into Brevo's OVHcloud environment.

Network engineers can now terminate all IP traffic from third-party providers via Megaport and route it seamlessly into OVHcloud or GCP.

To automate deployment and long-term management, Brevo used the **Megaport Terraform provider.** This cloud-like approach ensures fast provisioning, repeatable network configurations, and simplified operations, making the network easier to manage, scale, and adapt as new services or capacity requirements arise.

> "Achieving low-latency, cloud-to-cloud performance at 20 Gbps scale was key. The new setup gives us automated, resilient connectivity we can trust during peak loads."

Claire Tinard, Platform Engineer — Brevo.



BENEFITS

High-performance, scalable connectivity

Brevo can now sustain low-latency, high-bandwidth cloud-to-cloud peering and robust Transit IP traffic, ensuring seamless SaaS performance even during peak periods such as Black Friday or Christmas. This enables the company to scale capacity on demand without impacting user experience.

Resilient, future-proof architecture

With redundant MVE instances deployed across geo-redundant data centers and flexible multicloud and Transit IP options, Brevo's network is now highly resilient. The architecture supports opex-driven scaling, allowing the company to expand or diversify cloud services while maintaining continuous service availability.

Automated, cloud-like operations

Using Terraform and Infrastructure-as-Code, Brevo can provision, configure, and manage its network in the same cloud-like manner as its SaaS platform. This simplifies operations, reduces manual effort, and ensures consistent, repeatable deployments across regions.

Faster expansion and cost efficiency

By fully migrating to a virtual, opex-based model, Brevo eliminates the cost and complexity of managing physical data centers. Combined with Megaport's global network, this approach avoids vendor lock-in and enables rapid expansion into new markets, unlocking new revenue opportunities while keeping operational costs under control.

> "We chose Megaport for its fully automated products, which meet both our functional needs and our time constraints. Their simplicity, stability, and above all, the quality of the relationship with a responsive, approachable, and dynamic team have far exceeded our expectations and broadened the scope of our collaboration."

Mickaël Arias, CTO — Brevo.

FUTURE PLANS

Expansion to the US market

Brevo plans to increase its business to the United States using the same resilient, cloud-native virtual architecture provided by Megaport, ensuring consistent performance, scalability, and reliability in a new region.

Enhanced security with Megaport

Brevo will leverage Megaport's built-in anti-DDoS protection via Megaport Internet to diversify its network security and safeguard its global SaaS platform.

Complex Networks, Simplified.

Deploy global private connectivity in minutes.

Megaport is the leading provider of Network as a Service (NaaS) solutions. Our global Software Defined Network (SDN) helps businesses rapidly connect their network to services on demand via our easy-to-use portal or open API.

Megaport makes network connectivity easy and agile compared to traditional networking solutions. Our global ecosystem includes the world's top cloud service providers, data center operators, systems integrators, and managed service providers.

One platform for every connection.

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