

## Call Rate Management with FreeSBC at Marcatel



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—Sergio R. López  
Engineering Manager  
Marcatel

### Background

Marcatel S.A. de C.V. is a Mexican telecommunications company based in Monterrey, Mexico. With more than 50 years of experience, the company specializes in customized, innovative products and services to national and international carriers. Their large optical fiber network interconnects Mexico, USA, Canada, South America, Europe and Asia.



As part of their service portfolio, Marcatel offers high-capacity SIP Trunking for enterprise and contact center applications within their service market.

### Challenges

Contact Centers are an ideal market for Marcatel SIP Trunking services, providing high-speed and reliable connectivity for a large volume of both inbound and outbound call traffic. However, outbound contact centers that use automated dialers come with a new challenge.

Sergio R. López, Engineering Manager at Marcatel summarized their challenge as: “Without some means to manage aggregate call attempt traffic, customers that use high-speed dialers could overwhelm our core switch, degrading services across our entire customer base.”

To address this issue, Marcatel required a solution to intelligently manage the call requests from their SIP Trunking customers, capping call traffic to a prescribed calls-per-second limits before entering the Marcatel network (i.e. at the customer’s premises). Any over-capacity situation would require graceful degradation, using a rate-limiting algorithm to bring the call traffic into compliance with their SLA.

“Call traffic must be intelligently managed at the edge – namely at the customer premises”, explained Sergio.

Beyond the call-rate limiting challenges Marcatel had other needs including:

- Caller-ID and ANI substitution to improve call completion rates
- Simplified One-visit installation
- Deployment flexibility, allowing for installation on a COTS server or as a Virtualized Network Function (VNF) in service virtualization switches
- A low cost of ownership
- 24/7 Support

“Cost and installation complexity of customer-premises equipment were concerns during our evaluation process” noted Sergio, “We needed something that was very affordable, could be quickly installed and was fully supported”.

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### Solution

To fulfill these needs, Marcatel selected FreeSBC by TelcoBridges, a scalable software session border controller. Implemented at SIP Trunking customer sites, FreeSBC software is typically installed on a dedicated bare-metal server appliance or as a VNF on a service virtualization switch.

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As configured by Marcatel, call-rate limiting features utilize TelcoBridges’ proprietary intelligent algorithms to detect and gracefully manage overages, queuing and delaying call attempts that exceed contractual limits. With the easy-to-use FreeSBC management web portal, technicians at the Marcatel NOC can remotely adjust call-rate limits on a per-customer basis. The FreeSBC web portal simplifies configuration changes and eliminates the need for difficult command-line interaction typically found in competing SBCs.

In addition to call rate limiting, Marcatel utilized FreeSBC to provide caller-ID and ANI substitution for their SIP Trunking customers, presenting the called party with a branded message that improves call completion rates. Done on a per-customer basis and often modified, caller-ID modifications are facilitated more efficiently at the edge of the network on a customer-by-customer basis.

### Results

“Call-rate limiting performs exactly as per our requirements, allowing us to throttle call traffic in a graceful method, preventing outright rejecting traffic”, noted Sergio.

The objective of one-visit installation was achieved by installing FreeSBC on Dell COTS servers, reducing installation time to less than a day.

When addressing installation complexity, Sergio remarked: “We’ve found the ISO installation process for FreeSBC to be a big benefit, allowing our technicians to quickly install and activate SBC services during a single site visit. The reduced time on site and low cost of FreeSBC has saved us well over 50% when compared to other vendor’s SBCs”

In addition, an unexpected benefit arose during the initial customer trials, when utilizing FreeSBC’s TAnalytics network analytics. Part of the paid FreeSBC subscription, TAnalytics is a suite of network diagnostic tools that allow technicians to record, inspect and simulate network traffic. In one notable case, technicians used the call recording and tracing features of TAnalytics to diagnose a network issue within the customer’s dialer, resolving media quality issues.

Concluding his thoughts, Sergio shared: “Moving these functions to the edge of the network with FreeSBC allows us to deliver a more complete solution while reducing our costs, making Marcatel more efficient in a very competitive market”.

As a result, the capabilities, performance, overall simplicity of installation and low subscription pricing of FreeSBC proved to be an excellent solution for Marcatel. Learn how FreeSBC can meet your needs at: [www.freesbc.com](http://www.freesbc.com)

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