

Benevis Case Study: 50% Cost Savings for 120 Dental Clinics

Ingate helps Benevis cut its teeth on NFV while reducing costs and improving SIP gateway performance

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1. *Abstract*
2. *Introduction*
3. *Overview of the Benevis InGate setup*
4. *Problem and its Resolution*
5. *Summary*

1. Abstract

Benevis, a healthcare practice services provider, utilizes Ingate SIParators to manage its interface to SIP (Session Initiation Protocol) carriers in support of an extensive SIP-based telecom network. This network supports the operations of more than 120 dental clinics nationwide. An Ingate customer since 2007, Benevis recently performed a SIP carrier cutover resulting in a 50% cost savings with no operational disruption. Benevis also converted to a virtualized SIParator configuration, resulting in additional cost savings, robustness, and flexibility to its SIP telephony infrastructure.

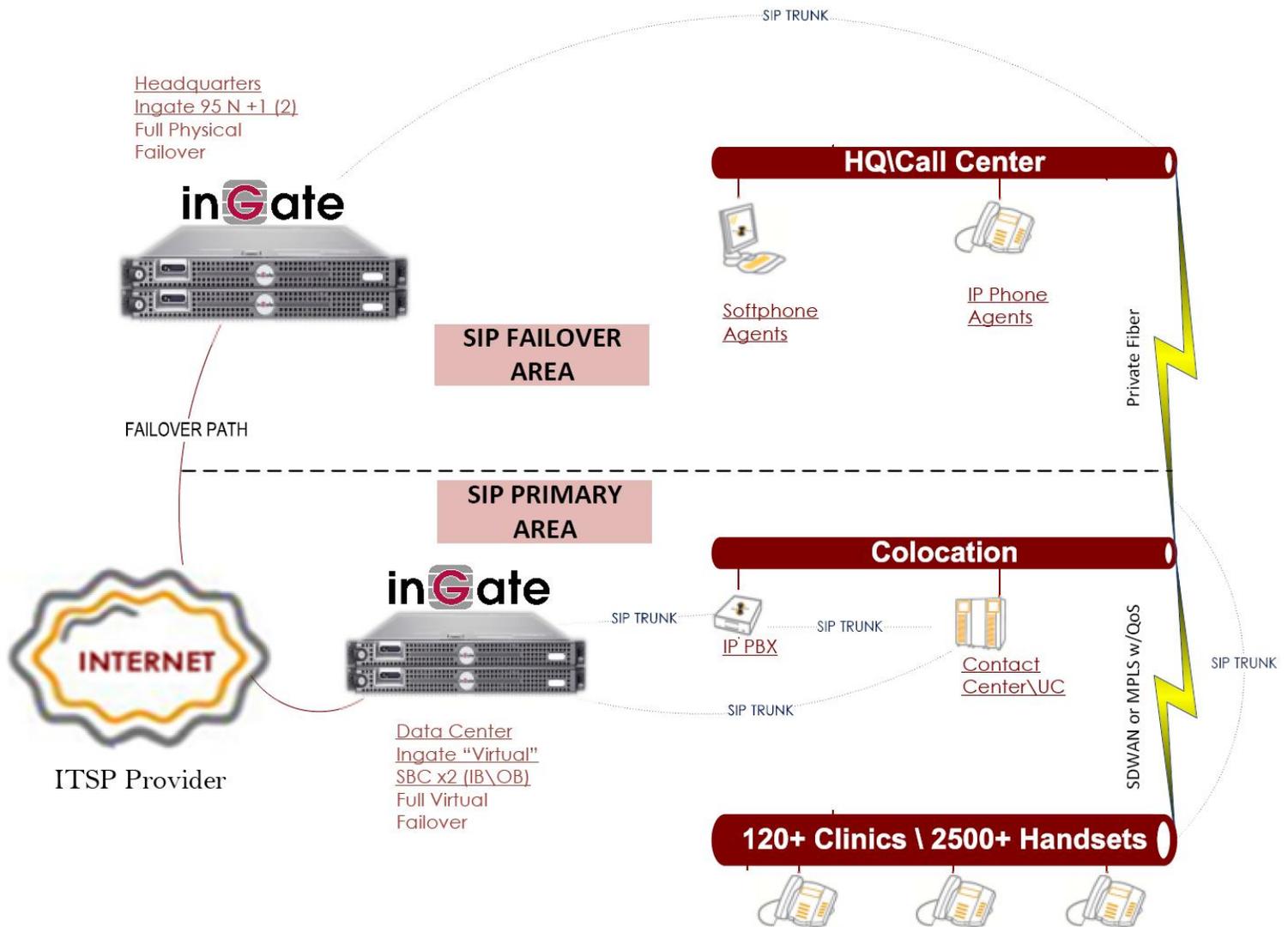
2. Introduction

SIP-based telephony has evolved from merely a curiosity a decade ago to increasing acceptance in mainstream corporate networks. For the past 10 years, Benevis has utilized SIP gateways from Ingate as an “on ramp” to SIP carriers. Originally limited in their functionality and footprints, SIP carriers have responded to increased market demand to expand their feature sets and coverage areas with improving pricing due to escalating competition. The beneficiaries of these developments have been the companies who are aggressive enough to become “early adopters” of SIP telephony not just within the enterprise (e.g., VoIP internal networks) but externally, “end-to-end” as well (“100% SIP”). Benevis is such an early adopter.

3. Overview of the Benevis Ingate setup

Benevis has a pair of teamed Ingate SIParators (Software SIParators) at its data center in Atlanta, Ga. (lower part of the diagram below), with a secondary pair (Model 95) at its headquarters in Marietta, Ga. (upper part of the diagram). These devices currently have a capacity of 620 SIP trunks, and mediate over 1 million minutes of voice traffic per month. Failover between the paired units is instantaneous, and their reliability is extremely high: in 10 years, Benevis has had 1 device failure.

Figure 1: Benevis Telephony Ingate Infrastructure



[Note: in the above diagram both Primary and Failover locations are connected via private fiber allowing SIP failover to secondary location as necessary while retaining connection to PBX\UC.]

As part of its NFV (Network Function Virtualization) strategy, Benevis recently introduced virtual SIPParators into its infrastructure. This capability, introduced by Ingate in 2014, gives customers the following advantages, all of which apply to the Benevis implementation:

- Ease of SIP deployment into local infrastructure
- Seamless failover of SIP traffic using virtual platforms
- Ability to keep hardware consistent across virtual platforms as per best practices.
- Increased security and inhibition of toll fraud

Transitioning to a virtual implementation of Ingate's SIParator solution was seamless for Benevis and presented few hurdles which included re-engineering some of the edge network infrastructure to accommodate the new virtual solution. Thoughtful and careful planning of the implementation has yielded a solid and more robust SIP edge that allows Benevis to be more flexible and strategic with regards to servicing SIP traffic.

"The virtual solution from Ingate has empowered Benevis Telecom engineers when it comes to expanding and securing our SIP edge. Ingate's robust feature set and interoperability enable us to work with new carriers and bring in new services right away making us more agile when expanding the ability of the organization's telephony needs." - Tim Goblisch, Telecom Manager, Benevis.

4. Problem and its Resolution

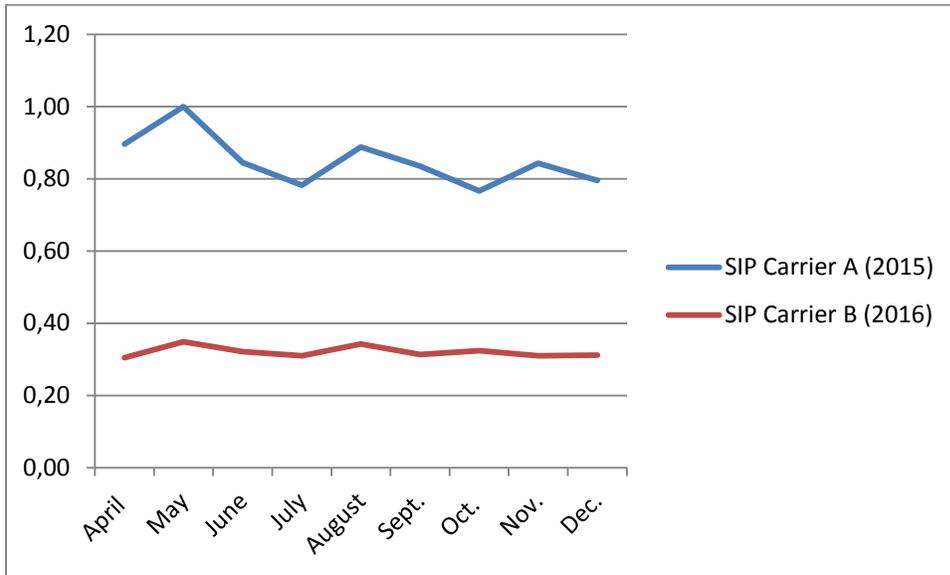
Despite being an early adopter of SIP telephony, Benevis was having issues with its SIP carriers. Costs were stubbornly high due to a large "off-net" footprint, and carrier reliability issues were causing increasingly frequent and lengthy service outages. Benevis surveyed the market for a year to see if there were other, emergent SIP carriers offering a better fit and more value. After an exhaustive search, Benevis identified such a SIP carrier.

In classic telephony, finding an appropriate carrier was only half the problem. Carrier migration was a headache, with intimidating challenges. For instance, what fallout would occur when porting numbers, any one of which would be operations-impacting? How long would the process take, and how much time and effort on the part of a limited-capacity telco group would it consume? How much incremental cost would there be, including after-the-fact remediation?

As a result, Benevis' Telco team did not take a SIP carrier migration lightly. The team conducted numerous tests as well as dry runs. Benevis identified an alternate, on-demand, backup carrier, just in case. When the cutover day came, the team migrated the entire 120+ office telecom infrastructure smoothly all at once.

So why the migration, even if it was seamless? One word: cost. The new SIP carrier offered rates that were 50%+ less, due to an expanded "on net" footprint, and elimination of "short duration" call charges. Benevis' mission of "serving underserved communities" means that our footprint is typically the last place carriers prioritize for service. Nevertheless, as SIP carriers build out their network, there are two significant advantages to consumers like Benevis: (1) access, and (2) price reduction due to competitive market forces. We are leveraging both aspects of this dynamic to help our company save money and deliver better, more reliable service to our patients and staff.

Figure 2: comparison of SIP Carrier A vs. SIP Carrier B monthly charge



[Note: maximum monthly charge for SIP Carrier A (May, 2015) = 100%, all other data points are relative to that peak.]

Also notice that the volatility of the monthly charges was reduced, permitting a more predictable spend.

5. Summary

SIP equipment providers like Ingate have over the past decade helped many companies to improve their telephony infrastructure and to achieve their corporate goals of improving performance and reducing cost. At Benevis, a healthcare practice management provider based in the Atlanta metro area but with more than 120 dental offices nationwide, we were early adopters of SIP telephony and have leveraged our decade-long relationship with Ingate to realize these benefits. Our ability to seamlessly move all our voice traffic (over 12 million minutes a year) from our incumbent SIP carrier to another with a more favorable footprint/pricing schedule allowed the company to achieve a 50% reduction in its telecom bill overnight with no operational disruption and improved availability/performance. In addition, the virtualization of the Ingate SIParator devices drives incremental cost reduction and enhances disaster recovery capabilities while supporting our long-term technology direction of Network Function Virtualization (NFV).

About Benevis

Benevis is a comprehensive practice services company committed to improving healthcare access by providing non-clinical, business support services to many of the nation's leading healthcare organizations. By providing business and administrative services, Benevis allows practitioners to maximize their clinical outreach, reduce time spent on paperwork and increase time serving patients. For more information on Benevis and becoming an affiliated dentist, please visit www.Benevis.com.