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GLYPH STUDIOS USES ASTERISK

CASE STUDY **ASTERISK**

OVERVIEW

Located near the Equator, along the infamous Pacific Ring of Fire, is the Republic of the Philippines, an archipelago of more than 7,000 islands scattered over 115,000 square miles in Southeast Asia. Three primary telecom networks provide all of the business and residential Voice over IP (VoIP) telephony, SMS, Internet, and consumer-based mobile phone service throughout the country.

Glyph Studios utilizes the open source Asterisk framework to customize a voice communications platform that provides special content and services to a large segment of those subscribers. The company's Missed Call Alert service (MCA) was initially accessed by 100,000 subscribers but has grown to more than 12 million users in just two years.

Philippines Currently Operating Largest Asterisk-based Service in the World at 12 Million Subscribers

Asterisk helps us handle 6,000,000 calls a day with 12,000,000 people a day using it ... projections have us to 30 million in 2015."

Gerry Amisola
Glyph Studios,
Founder

Gerry Amisola, founder of Glyph Studios, a software development company located in the capital city of Manila says, "Asterisk helps us handle 6,000,000 calls a day with 12,000,000 people a day using it, making it by far one of the largest Asterisk-based services in the world currently; and projections have us ramping it up over the next year to 30 million in 2015."

Amisola says he looked at other platforms and frameworks by Cisco and Nokia while they were in the development stage. "They were both going to be very expensive for a start-up company like Glyph, building an infrastructure from the ground up."

Even with its proven capabilities, there was still the question of whether Glyph could customize Asterisk to attach their communications systems to the telecoms and then provide additional capabilities.

One of Glyph's engineers was familiar with Asterisk and suggested that an open source solution would save money. Sponsored by Digium, Asterisk is used by organizations of all sizes, including call centers, carriers and governments worldwide to power IP PBX systems, VoIP gateways, and conference servers. Even with its proven capabilities, there was still the question of whether Glyph could customize Asterisk to the point that they could attach their communications systems to the telecoms and then provide additional capabilities like their popular MCA and other services?

"Every system is unique in its own way but for us, the flexibility to customize Asterisk to our needs was as important as the cost savings," says Amisola, In the first year of using Asterisk, Glyph was primarily concerned with testing it to see how smoothly it connected. From there, the implementation of Asterisk at Glyph continued to grow. And there have been no signs of the expansion stopping – fueled by the ongoing success of the MCA service.

MCA is essentially voicemail with notification. Because the mobile providers in the Republic of the Philippines do not offer standard voicemail service, MCA provides a much-needed service. It allows a caller to leave a message if you do not answer, and then the MCA system sends an SMS text message notifying you that someone tried to call and has left you a voice message. When you call the designated number, given to you in the SMS text message, you are connected directly to the MCA message. The message remains on the server for three days.

"We knew our telco partners were serious about their intent to heavily market MCA as more convenient and cheaper than standard voicemail services but I have to admit we are surprised by the adoption rate. Our carriers like it because they do not have to pay for commercial licensing fees for a voicemail system,, and customers only pay a nominal fee when they retrieve their messages from MCA."

The implementation of Asterisk at Glyph continues to grow with no signs of stopping—fueled by the ongoing success of the MCA service.

This past year, Glyph sent a team of three technicians to an Asterisk conference in Malaysia. While there they also attended an advanced training class in Asterisk usage. There they met Digium's Open Source Community Project Director, David Duffett. An expert in setting up Asterisk-based systems around the world, Duffett is also a senior spokesperson and the public face for the Asterisk project, holding seminars and conferences on Asterisk's unique flexibility. Glyph reached out to Duffett regarding their plans to build a SIP infrastructure on the backend to make expansion easier and less expensive in the future.

"Meeting David had a significant impact because we were able to optimize the knowledge of an Asterisk global expert who showed us new tricks to make installation easier, and how to make some of the operations more efficient," says Amisola.

Duffett's knowledge has been important not only from the standpoint of optimization and scalability but with reference to several of Glyph's projects, including a couple of special Asterisk-based music apps called Piso Play and Ad Call. Asterisk has been so popular with Glyph Studios, they currently have eight different services running on the Asterisk platform.

The E1 connection handles 30 calls on one piece of wire. Glyph has nine servers, each supporting eight E1s, for 2,160 calls simultaneously.

According to Amisola, they purchased E1/T1 PRI cards from Digium, and scaling Asterisk to handle millions of calls a day was their biggest challenge. A challenge that they are proud to say they have been able to meet. Currently, the telecom companies feed all missed calls through the E1/T1 digital connection with SS7 protocol rather than through SIP. The E1 connection handles 30 calls on one piece of wire. Glyph has nine servers, each supporting eight E1s. That is 2,160 calls simultaneously.

"Now, I am focused on building a SIP infrastructure for Asterisk on the backend to keep costs down," says Amisola. As Duffett likes to remind Amisola, SIP will also improve mobile service and make it easier to grow the volume to larger capacities.

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