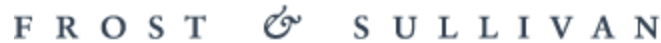


- ? Region in which Award is given: North America
- ? IRG: 62
- ? Manager: Elka Popova
- ? Analyst: Krithi Rao



## **I. Market Overview/Key Challenges**

Most business telephone and voicemail systems are reaching the end of their useful life around 2007 and 2008, and businesses are looking to migrate to next-generation, IP-based platforms. This provides ample opportunity for enterprise communication equipment vendors and component providers that sell to the communication equipment vendor market.

However, the opportunity comes at the same time that the enterprise communication market is being beset with a tidal wave of new technologies and standards. The telephony and messaging solutions are considered the foundation of all communications and common to all business sizes across all verticals. These solutions are undergoing a transformation as they get impacted by trends such as migration to IP communications, fixed and mobile network convergence (FMC), increasing penetration of mobility into both consumer and enterprise communications, unified communications and communication-enabled business process integration. This in turn is redefining how the customers and the vendors are purchasing their solutions.

The enabling technology market that consists primarily of media processing technology, PSTN interface technology and analog line connectivity technology has been experiencing particularly tough times over the past few years as the upper layers of the value chain were undergoing a major transformation. Revenue growth in the media processing technology market became stagnant as Telecom boards offered higher densities on a single unit, on one hand, and enterprise, contact center and carrier markets such as PBX, IVR, ACD and messaging grew slowly and started adopting more cost-effective products such as host media processing (HMP) software, on the other.

However, revenue growth in the PSTN and analog connectivity segment has been improving as more and more customers have been adopting IP-based solutions but still connecting to the PSTN network and to analog phones. Frost & Sullivan research indicates that while 70 percent of the telephony lines being shipped in North America belong to IP-based systems, only 40 to 45 percent are actually connecting to IP endpoints. The advent of open-source IP telephony that has been particularly attractive to the cost-conscious SMB segment is providing PSTN and analog connectivity solution providers with a new market to target.

## **II. Award Categories & Relevance**

The North American enterprise voice communication market is not an easy market to penetrate. At one end of the value chain, which consists of complete telephony solutions, the market is dominated by incumbents such as Avaya, Cisco and Nortel. These companies account for more than 50 percent of the telephony lines shipped in the North American enterprise telephony systems market.

At the other end of the value chain, that consists of enabling technology components that are used in the telephony solutions, the market has been traditionally governed by companies such as Dialogic, Aculab and AudioCodes.

Most incumbent telephony vendors have established relationships with one of these three vendors. Further, as the telephony vendors have moved forward with their VoIP strategies, the enabling technology vendors have also been keeping pace and moving forward with the advanced features that are needed for the telephony solution.

For an enabling technology vendor to penetrate this market and actually succeed, it has to be able to differentiate either on price, features or discover a niche need that is not being met. A strategic analysis of these factors has not only aided Frost & Sullivan in identifying a set of Best Practices followed, but also companies that have been the leaders in some of these initiatives.

## **III. Award Recipient**

### **Award Description**

The Frost & Sullivan Growth Excellence Award is bestowed each year upon the company which has demonstrated excellence in implementing and sustaining growth through unique growth strategies. Frost & Sullivan, through this exhaustive selection process, seeks to identify a company that has exhibited excellence in all its functional areas, resulting in sustained financial growth.

### **Research Methodology**

A recipient is chosen to receive the Frost & Sullivan Growth Excellence Award based on specific criteria. Through primary and secondary research methods, all companies' market revenues are tracked and those exhibiting significant growth are noted for their strategy implementation. Revenues are then compared year to year to monitor growth patterns. When a company continues to show high growth rates in unit shipments, revenues and profitability, it is a candidate for the Frost & Sullivan Growth Excellence Award.

## Measurement Criteria

This Award is given to the company that has bolstered its position in the market during the base year and whose strategy will have a lasting impact on the market. The following criteria have been used to select the Award winners:

- ? Ability to grow in a saturated or maturing market
- ? Annual market share growth
- ? Implementing a unique sales strategy to increase market share and revenue growth
- ? Effective management of existing product portfolio
- ? Product innovation—satisfying unmet needs, creating new needs, and developing new technologies
- ? Technological innovation and leadership
- ? Discovering new venues for an established product
- ? Strong sales force strategy—number of sales people (direct and indirect), sales force specialization, efficiency in distribution, ability to train and educate, and strong customer service
- ? Ability to establish brand awareness through promotional activities and advertising
- ? Strategic mergers, acquisitions, or joint ventures to penetrate new markets
- ? Reorganization structured around growth strategy

## **2007 North American Enterprise Voice Communication Market Growth Excellence Award**

Frost & Sullivan presents the 2007 Frost & Sullivan Growth Excellence Award in the North American enterprise voice communication market to Sangoma Technologies Corporation. This Award is bestowed each year upon the company that has demonstrated excellence in implementing and sustaining growth through unique growth strategies.

Sangoma Technologies Corporation receives this award in recognition of its ability to leverage unique opportunities such as open-source telephony in a mature but rapidly evolving enterprise voice communication market and translate it to accelerated revenue growth.

### **Leveraging Existing Technology to Penetrate New Markets and Accelerate Growth**

Founded in 1984, Sangoma Technologies Corporation is currently one of the well-known providers of connectivity hardware and software products for VoIP, TDM voice, WAN and Internet infrastructure. The company primarily offers a range of PCI-based cards with T3/E3, T1/E1 TDM, analog voice and data, ADSL and serial interfaces.

The company's foray into the voice communication market is as recent as three years ago. Before that, the company had primarily been a supplier of connectivity hardware and software products for Wide Area Network (WAN) and Internet infrastructure. The market for PC WAN cards that had served Sangoma well since 1984, declined drastically between 2001 and 2004 when the "dot com" implosion happened. Sangoma managed to continue operations during this time by controlling costs and delivering quality.

However, once the market recovered, Sangoma had to quickly find a way to grow its target market and increase its revenue streams. With the advent of VoIP that leverages converged voice and data infrastructure, Sangoma found that it could easily leverage its data communication products, experience and expertise in the voice communication market. Initially expected to be an incremental source of revenue for Sangoma, the voice business now accounts for a large percentage of the company's revenue.

### **Finding New Venues in a Saturated Market**

With both the complete telephony solution end and the enabling technology end of the value chain being fairly mature, Sangoma was faced with the challenge of having to compete with established players and relationships. Accordingly, once the company decided to make its entry into the voice communication market, it concentrated its efforts on addressing the needs of the rapidly growing open-source telephony market.

The open-source telephony movement, although in existence since 1999, gathered steam around the same time that Sangoma decided to enter the voice communication market. At the time, the Asterisk movement was the most popular among various emerging open-source solutions with Digium being the only provider of hardware supporting Asterisk deployments. However, since Digium was more focused on cost-conscious users that were interested in Asterisk because it was free, it was offering low-priced, lower-quality connectivity hardware.

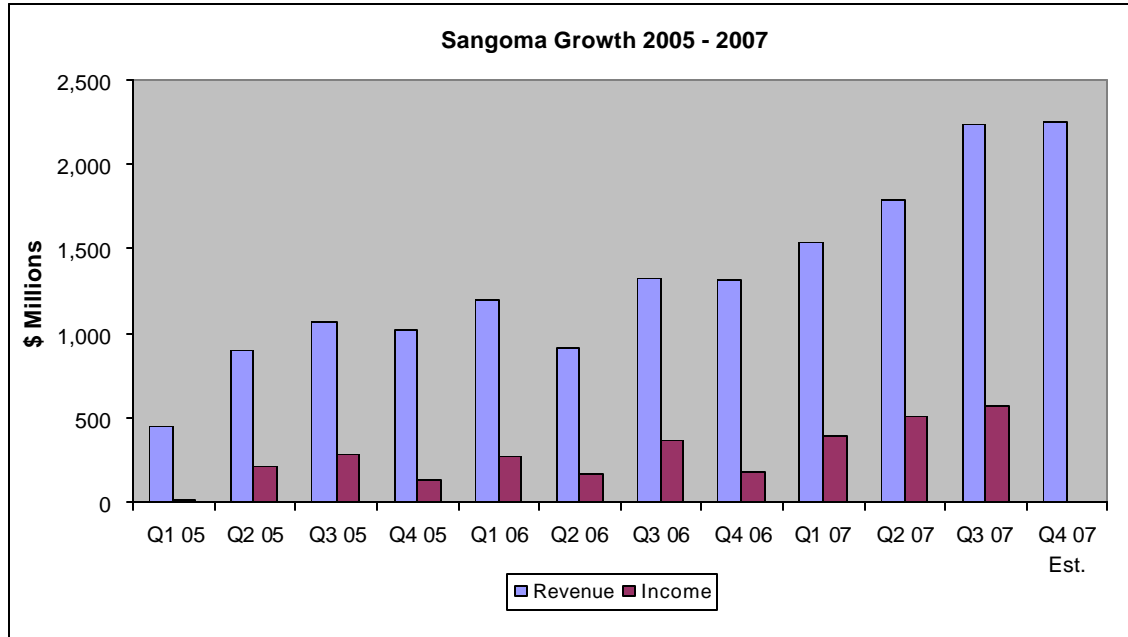
Sangoma's focus on high-quality, enterprise-grade hardware in the data communication market enabled it to follow the same strategy in the voice communication market. Thus it positioned itself as the provider of hardware that was needed for a "serious" Asterisk deployment. Since then, with Asterisk gaining momentum in business-grade deployments, Sangoma has been able to ride the coat-tails and leverage the momentum for itself.

The company's efforts in improving its brand name recognition are seen in the fact that selling and marketing expenses increased by 47 percent in 2006. Its current marketing strategies include support for various open-source development initiatives.

During the course of a research study performed on the open-source market, Frost & Sullivan spoke to multiple open-source-based telephony solution providers that use such enabling technology and VARs that have implemented open-source solutions. It quickly became evident that, although there are now multiple companies supplying hardware to open-source users, apart from Digium, Sangoma is becoming the primary name associated with Asterisk deployments.

## Consistent Growth Excellence

In Q2 2007, Sangoma reported a phenomenal increase of 95 percent in revenue over Q2 2006. The company continued to display this strong growth with 68 percent growth in Q3 2007 over Q3 2006. The following chart shows Sangoma's financial growth quarter-over-quarter from 2005 to 2007.



In most quarters, close to 60 percent of the revenue and most of the growth was derived from sales into the open-source telephony market. The company reported close to 40 percent growth from 2005 to 2006 and is on track to achieve close to 65 percent growth in 2007. Frost & Sullivan believes that this accelerated revenue growth is indicative of the success Sangoma has had in addressing a unique opportunity in a saturated market.

## Effective Management of Product Portfolio

In order to be able to support open-source telephony software that evolves almost every day to include new features and new bugs, enabling technology vendors have to be able to react quickly. Sangoma claims to be able to effectively address this challenge due to the unique way its products are architected.

All of Sangoma's voice-related AFT products, which include the A200 FXO/FXS analog system, the A101 (single T1/E1), A102 (Dual T1/E1), and A104 (Quad T1/E1), leverage common components. They use the same base PCI interface card, the same firmware on the same family of Field Programmable Gate Arrays. The entire family of products work identically in all motherboards. Finally, they all conform to 2U specifications and all are delivered with both normal size and 2U brackets.

A family approach supposedly provides the company with the advantage of solving PC-related interface problems only once. Such an approach is one of the reasons that Sangoma is widely being adopted by entities that want to leverage open-source telephony software in order to deliver a turnkey system of their own.

One of the expected drivers for the future growth and mass adoption of open-source telephony is the appearance of companies such as Fonality, Four Loop Technologies/Switchvox and Intuitive Voice that are creating complete turn-key PBXs out of raw Asterisk source code. They use enabling technology provided by companies such as Sangoma to connect to the public telephone network.

With predictable behavior of the hardware components, such companies are now able to focus on improving and stabilizing the actual software. For some vendors, Sangoma's product quality has reduced the number of support issues that they used to experience with other hardware manufacturers. This has in turn allowed them to continue to focus on bringing more innovative products to the market and compete with the proprietary telephony vendors.

Frost & Sullivan believes that by providing high-quality enabling technology cards for open-source communications at a price and performance level VARs and customers can digest, Sangoma has opened up a new opportunity in the saturated business telephony market for itself and for new open-source telephony vendors.

### **Product Innovation to Satisfy Unmet Needs**

For a company that currently has less than 20 people, Sangoma innovates at an enormous pace. The company has been consistent in its expenditure on research and development with an increase in expenditure in 2006 by 4 percent, as compared to 2005. Such consistent R&D efforts allow it to introduce innovative products that provide greater value to open-source telephony customers.

For example, Sangoma's latest firmware revisions include a modification that allows users of open-source telephony to reliably transmit and receive faxes over T1/E1 circuits for the first time.

Fax machines that connect to a PBX using T1/E1 connections supposedly provide inconsistent performance. This is primarily because the analog interfaces that support fax machines are typically not synchronized with the PSTN. Sangoma's firmware revision that includes an option for the analog card to receive its clocking from a T1/E1 card via a two-connector cable resolves this issue and eliminates the need to invest in a separate analog line.

To address a mass market, the fax solution is software-agnostic and works with any operating system or application. All of Sangoma's T1/E1 cards with hardware echo cancellation that have been shipped after June 1, 2007, have the new synchronous fax support enabled.

## **Unique Sales Strategy to Increase Market Presence**

Sangoma's level of commitment in catering to the open-source telephony market is unique compared to other hardware vendors that only occasionally address the needs of this market. Further, while many of its hardware counterparts are focusing on specific open-source telephony projects, Sangoma's products can work with multiple open-source telephony initiatives including Asterisk, FreeSWITCH, CallWeaver, and Yate.

However in order to achieve a competitive edge, Sangoma is taking personal interest in the open-source telephony project called Yate. Sangoma and the Null Team Company, the primary developer of Yate, have already announced an agreement to develop a Windows-based version of the GPL-licensed Yate telephony project. In August 2006, Sangoma Technologies and the Null Team Company released a stable native Windows-based version of the GPL-licensed telephony software.

With this move, Sangoma is achieving a couple of objectives. Open-source initiatives, however innovative they may be, do not succeed if they do not have the financial and marketing backing of a commercial company. In Asterisk's case, Digium provides this kind of support. Similarly, Sangoma expects to increase the chances of success for the Windows version of the Yate project, by leveraging its brand name and financial support.

Secondly, Sangoma's belief is that Asterisk, which is based on Linux is not addressing the numerous Windows-based applications in the market. This includes call center applications, messaging applications and IVRs. By providing a robust open-source telephony software for the Windows environment, this market can be captured. In the process, with Sangoma's name being affiliated with Yate, the company will attain some of the status that Digium now has with Asterisk.

Sangoma has also been helping the FreeSWITCH open-source communications initiative with financial and research support. FreeSWITCH differs from Asterisk and Yate in that it is positioned to work more as a softswitch in a service provider environment and not as a PBX. Thus, if it succeeds, it provides Sangoma with yet another market to target.

## **Conclusion**

Frost & Sullivan believes that Sangoma is making a significant impact in the enterprise voice communication market with its product strategy, commitment to customers and a unique sales strategy. This is evident from the growth that the company has witnessed, and the high level of satisfaction expressed by its customers. Frost & Sullivan recognizes this and presents Sangoma with the 2007 North American Growth Excellence Award in the Enterprise Voice Communication Market.

#### **IV. Summary of Best Practices**

Sangoma has taken specific steps to improve the quality of its products in catering to the open-source telephony market. For example, one of the primary reasons for Sangoma to deliver excellent voice quality is the company's partnership with Octasic, a company that provides echo canceling technology. Sangoma was one of the first few companies to utilize Octasic's technology to bring enterprise-grade voice quality to the open-source telephony market. Although this raises the price point of Sangoma's product, its commitment to quality made this product enhancement necessary.

Further, when Octasic introduced software-based echo cancellation to the market, Sangoma proceeded to create a partnership whereby the company will bundle a free six-port license for Octasic's software-based echo cancellation solution with Sangoma's standard A200 and A400 analog cards. Sangoma's objective is to bring high voice quality to the most cost-conscious customers.

Sangoma has dedicated specific resources to open-source and Asterisk. The company's technical support staff is extremely educated about the way Sangoma's product line works with Asterisk. Turn-key solution vendors that use Asterisk say that, in most cases, Sangoma has been able to bring issues to resolution immediately.

Sangoma's complete commitment to the open-source communication market is seen in the number of relationships that it has established with open-source initiatives. Besides the open-source telephony initiatives mentioned in the award, Sangoma has working relationships with Vyatta, and supports FreeBSD, OpenBSD and NetBSD.

Sangoma has made it a point for its products to be software- and operating system-agnostic. With this strategy, Sangoma expects to take advantage of the growing potential that exists in the Microsoft Unified Communications ecosystem and non-open-source server-based telephony solutions.

Server-based telephony applications, mostly being based on SIP, all need standard Public Switched Telephone Network (PSTN) access. Sangoma can easily and inexpensively provide the necessary PSTN interfaces to support a new solution or vendor.

Further, Sangoma's products, although providing high quality, are considerably less expensive than products from incumbent vendors such as Dialogic or Aculab. This makes Sangoma's products easily accessible to the host of SMB-facing SIP-based telephony system providers entering the market today.