INTRODUCTION

The Management Discussion and Analysis (“MD&A”) provides a detailed analysis of the financial condition and results of operations of Sangoma Technologies Corporation (hereinafter referred to as “Sangoma” or the “Company”). The MD&A compares the financial results for the fiscal second quarter of 2013, with those of the same quarter in the previous year. This MD&A should be read in conjunction with Sangoma’s audited annual financial statements and related notes for the year ended June 30, 2012 (“Financial Statements”) which are available at www.sedar.com. All amounts are in Canadian Dollars unless otherwise noted.

BASIS OF PRESENTATION

Since July 1, 2010 the Company has reported in accordance with International Financial Reporting Standards (“IFRS”).

NON-IFRS MEASURES

This MD&A contains references to certain non-IFRS financial measures such as Operating Income and EBITDA. Non-IFRS financial measures are used by management to evaluate the performance of the Company and do not have any meaning prescribed by IFRS and therefore may not be comparable to similar measures presented by other reporting issuers. Non-IFRS financial measures used herein have been applied on a consistent basis. “Operating Income” means gross margin less expenses before financing costs and one-time charges. “EBITDA” means earnings before interest, income taxes, depreciation, amortization and one-time charges. EBITDA is a measure used by many investors to compare issuers on the basis of their ability to generate cash from operations. We believe that Operating Income and EBITDA are useful supplemental information as they provide an indication of the results generated by the Company's main business activities before taking into consideration how they are financed or taxed. Investors are cautioned that non-IFRS measures, such as those presented herein, should not be construed as an alternative to net income or cash flow determined in accordance with IFRS.

FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements, including statements regarding the future success of our business, development strategies and future opportunities.
Forward-looking statements include, but are not limited to, statements concerning estimates of expected expenditures, statements relating to expected future production and cash flows, and other statements which are not historical facts. When used in this document, the words such as “could”, “plan”, “estimate”, “expect”, “intend”, “may”, “potential”, “should” and similar expressions indicate forward-looking statements.

Although Sangoma believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Forward-looking statements are based on the opinions and estimates of management at the date that the statements are made, and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in forward-looking statements. Except as required by law, Sangoma undertakes no obligation to update forward-looking statements if circumstances or management’s estimates or opinions should change.

Readers are cautioned not to place undue reliance on forward-looking statements, as there can be no assurance that the plans, intentions or expectations upon which they are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, forecasts, projections and other events contemplated by the forward-looking statements will not occur. Although Sangoma believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct as these expectations are inherently subject to business, economic and competitive uncertainties. Some of the risks and other factors which could cause results to differ materially from those expressed in the forward-looking statements contained in the management's discussion and analysis include, but are not limited to changes in exchange rate between the Canadian dollar and other currencies, changes in technology, changes in the business climate, changes in the regulatory environment, the decline in the importance of the PSTN (see glossary below) and new competitive pressures. The forward-looking statements contained in the management's discussion and analysis are expressly qualified by this cautionary statement.

**DESCRIPTION OF THE BUSINESS**

**General** (please also refer to the Glossary of Terms at the end of this document)

Sangoma is a leading provider of hardware and software components that enable or enhance IP Communications Systems for both telecom and datacom applications. Enterprises, Small and Medium Businesses (“SMB’s”) and Carriers in over 150 countries rely on Sangoma’s technology as part of their mission critical infrastructures. Through its worldwide network of Distribution Partners, Sangoma delivers the industry’s best engineered, highest quality products, some of which carry the industry’s first lifetime warranty. Our products consist of hardware cards, software drivers, software applications, full appliances and utilities.

In fact, commencing in fiscal 2012, Sangoma has accelerated new product introduction very dramatically. For details see the innovation section of this document.

Figure 1 shows a typical Sangoma card - The A104 card. The A104 is capable of supporting up to 128 simultaneous telephone calls or providing up to 8Mbps of full duplex data bandwidth over T1 or E1 lines.
While Sangoma continues to invest in the development and certification of new products supporting voice and data transport, the Company is also developing products that are not tied to the existing telephony infrastructure.

**Wide Area Data Networking cards**

Mass market switches and routers are purpose built devices that have either no expandability or use proprietary hardware interfaces that support only the supplier’s hardware.

Where somewhat specialized functions are required, it is convenient to use standard PC-type hardware and readily available operating systems and toolkits to produce switches, routers and other connectivity devices in small and medium quantities. Sangoma’s WANPIPE® internal routing solutions support these systems with standard telephony interfaces such as T3, E3, T1, E1, BRI, ADSL and 56kbps DDS, or industry standard serial interfaces such as RS232, V.35 and X.21. Typical customers for this technology include companies from a vast array of industry segments, but a few examples would include clients who build switches and routers for rugged industrial environments, a number of companies building devices that interface to Air Traffic Control systems, firms who use the cards to monitor cell phone call data and large global telephony equipment manufacturers who use Sangoma cards for a specialized SS7 monitoring application.

This business is the original market that Sangoma products addressed from conception and it is still a very important component of the Company’s business.

**Telephony Cards**

The Asterisk® Market

Asterisk is an Open Source telephony (“OST”) project based on the PC platform and was one of the first such OST products. It grew out of a small initiative in the late 1990s and has grown into a worldwide phenomenon. Over 12% of all new PBX installations in the US in 2008 were Asterisk-based\(^\text{1}\). Asterisk is Open Source which means that it is free to use and modify, but it is

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\(^1\) Open Source PBX: Market Size, Forecast and Analysis: Eastern Management Group, 2009
owned and copyrighted by Digium, Inc. which also market telephony cards similar to those provided by Sangoma.

In 2004 Sangoma began providing cards to this market and has been the most successful telephony card supplier in this space, except for Digium itself.

The original market for these products was to large numbers of small OEMs and integrators who hand built systems for themselves or clients. This has been changing into one of increasing scale and professionalism as the market consolidates.

Sangoma’s successes in this market has largely been with larger, more professional OEM packagers of the basic Asterisk product, where requirements for product quality, low system loads and voice quality have steered customers to the Sangoma product line. Thus the increasing consolidation in the market has worked to Sangoma’s advantage. The barriers to entry in the Asterisk market can be quite low (so several other companies have attempted to enter this market with generally modest success) and this market is a price sensitive one (so some entries from China are finding acceptance in the low end of the market).

Other Open Source Markets

There exist several other OST projects apart from Asterisk. Such OST projects allow Sangoma to compete with other board suppliers on a level playing field compared to Asterisk, where Digium can be perceived to have somewhat of an advantage due to providing the software application as well as the hardware cards.

FreeSwitch™ is one such OST application that is generally considered architecturally superior to earlier solutions. It has begun to be used for switching and PBX applications commercially. Sangoma has supported the project virtually from its inception, and is currently involved in the development of the part of the system that provides connectivity to the PSTN. Sangoma’s involvement in FreeSwitch provides Sangoma a competitive advantage as compared to other PSTN card manufacturers for FreeSwitch. The Sangoma implementation for FreeSwitch does not include Open Source telephony control and signalling modules (those are provided as closed source modules that only work with Sangoma hardware), and that adds a considerable barrier to entry for competitors in this space.

There are many other such OST solutions and Sangoma endeavours to work with these organizations and interface to these products whenever practical. Some examples of solutions based upon their own OST application/appliance or upon integrating others’ OST products include Fonality, PBXnSIP, 3CX, Elastix, etc. many of which we already support and cooperate with. These offerings are all potential opportunities for Sangoma to sell its hardware and software into, or alongside.

Figure 2 below illustrates typical Sangoma support for an OST project. The OST PSTN interface, being Open Source, is what we integrate with. It is essentially an API that Sangoma has been able to use to integrate our low level driver, and hence Sangoma’s hardware, into the system. The PSTN connection can be analog or digital T1, E1 or BRI.
Non OST Telephony projects

The success of OST offerings coupled with growth in the concept of VoIP has fuelled a movement away from the use of proprietary hardware to the use of PC platforms for telephony applications, not only for OST but also for the larger, more general market of commercial applications. Thus companies that had traditionally used their own hardware for PBX and call center applications now are making available software that can be run under Windows or Linux on virtually any PC server that has enough computing power. These PC-based telephony applications are all VoIP based and concentrate on Unified Communications features. Connection to the PSTN is generally intended to be provided by third party gateways.

As virtually all telephony is moving to the PC platform there is an opportunity to provide the same integrated PSTN connectivity for commercial, non-OST (i.e. “closed source”) telephony applications as we have done for the OST market. There are many interesting applications in this market, including offerings from Microsoft (ie. Lync), Avaya, Cisco, IBM and many others. All such solutions are potential opportunities for Sangoma.

In the case of closed source applications, Sangoma has had to find another standard interface, one that is supported by all commercial applications. Until a decade ago, such an interface did not exist. With the rise of VoIP, however, a standard has emerged for supporting VoIP traffic, and that standard is SIP. SIP is supported by all modern software-based telephony applications and it has the power and control required to allow a fully functioning PSTN support application to work properly. The opportunity for Sangoma therefore lies in being able to provide integrated Gateway functions (i.e. inside the PC that hosts the telephony application).

Sangoma has been investing heavily in R&D to address this market, and has now launched a full suite of Gateway products, implemented in software and hardware. These product offerings allow us to support SIP interfaces and therefore open the market for Sangoma to closed source packages as shown in Figure 3.
Transcoding Boards

Sangoma’s D100, D150 and D500 transcoding cards translate voice traffic encoding from one Codec to another, usually to save bandwidth, in which the ‘translation’ is a compression task. A standard digital voice channel consumes 64kbps in each direction, while one that is compressed using another Codec may only consume 8kbps. Especially in the “last mile” scenario where the link may have an upstream bandwidth of 700kbps or less, VoIP compression is very important, particularly if the link is shared with normal Internet traffic.

Transcoding to different Codecs can be done on a PC, but the number of sessions that a single PC can handle is severely limited. Also, many of the codecs are patented so that significant license fees are required for software-based transcoding. Sangoma’s transcoding cards can handle 480 simultaneous compression sessions on the D100 series and 2400 sessions on the D500 series.

The product is of interest to SIP based telephony providers of all types, as well as call centers and PBX manufacturers and is another new area of business for Sangoma that is not dependent at all on the PSTN.
Call Progress Analysis

This is a software application, running under Windows or Linux that is able to examine digitized telephone traffic and report whether a call has been answered by a human or answering machine/voicemail or has some other type of response such as an out of order message. CPA is a product that is purely VoIP-based. As such, it is a product that does not depend on the PSTN for its implementation, although most sales to date have also included gateways.

CPA is used in outbound call centers which are typically controlled by automatic diallers working from lists. Calls are only connected to agents once the call has been answered and verified to be a person (not an answering machine, etc.). Accurate CPA can have a very significant effect on the efficiency of the agents and hence the profitability of a call center. In addition, new regulations are coming into effect worldwide to reduce nuisance calls to subscribers, and these impose strict limits on the accuracy of determination of a human respondent as well as the time taken to make that determination.

Sangoma’s CPA is based on a proprietary artificial intelligence model that is currently considered the most accurate system available, having an accuracy of approximately 95% while most competing systems have an accuracy of about 80%. Customers of CPA include many large companies and Fortune 500 firms. CPA is sold largely through recommendations by partners, the most important at this time being Genesys, a major supplier of call center applications. Work continues on streamlining the implementation of CPA, to simplify the task performed by these partners, and we are actively seeking new partners in the call center business to help market and implement the product.

Sangoma recently released a new version of CPA capable of working with Open Source based call centers running Asterisk.

SS7 Solutions

Sangoma's NetBorder SS7 to VoIP offering is a software application that provides full-featured, carrier-class VoIP deployments while leveraging the flexibility of standard computing platforms and operating systems. It allows telecom service providers to introduce VoIP in their networks in the most cost-effective and flexible way. This is simply accomplished by combining this software application, normally with Sangoma’s award-winning digital T1/E1 and transcoding boards, on standard computing servers. The solution supports up to 32 T1/E1 per server and, for larger installations (up to 256 T1/E1), multiple servers can be used to provide maximum flexibility and support growth.

SIP to PSTN Software Solutions

NetBorder Express is a complete SIP-compliant VoIP software application, delivering the most flexible and cost effective solution by removing the need for external gateways. It is compatible with Analog FXO and FXS, MFC/R2, ISDN BRI and PRI telephony interfaces. NetBorder Express can scale from 2 to 480 simultaneous calls, providing excellent value and flexibility for deployments in any geography. NetBorder Express communicates with applications such as IP-PBXs, speech enabled IVRs, conferencing servers, contact center or trunking gateways directly with the ubiquitous SIP control protocol to reduce deployment time, complexity and cost for next generation network application deployments. NetBorder Express software is licensed via a simple online process. During fiscal 2012, Sangoma obtained certification for NBE with Microsoft Lync.
Media Gateways

Sangoma’s Media Gateway portfolio consists of two broad product families of appliances: the Vega line and the NetBorder line.

The Vega VoIP Gateway portfolio reduces business phone bills and can truly improve business efficiency. Our Vega VoIP Gateway portfolio supports analog, ISDN Basic Rate and ISDN Primary Rate interfaces for North American and European standards. The Vega range allows businesses to reduce their telephony communications costs by routing inter-site calls over their given choice of IP network. Vega VoIP Gateways provide the perfect answer for IP-based voice services and for connecting to service provider broadband access over DSL and cable networks. The Vega line consists of the Vega50 for low density analog and digital applications up to 10 ports, the Vega100/200/400 for higher density digital applications up to 4 E1s or T1s, and the Vega5000 for higher density analog applications up to 50 ports.

Our NetBorder line of appliances offers Media Gateways for SS7 Solutions or for SIP to PSTN needs. These appliances bundle Sangoma’s SS7 or SIP to PSTN software, our industry leading telephony cards (and often transcoding cards as well), and Sangoma supplied and tested server hardware and operating system, on a complete ‘works out of the box’ solution. During our second quarter, the Company released its newest version of the SS7 Gateway, incorporating several key components of new functionality required by Carriers including Sigtran and Megaco protocols.

Multiplexers

In fiscal 2012, Sangoma introduced our new line of Multiplexers. The first product in this new line of appliances was our “M13 Multiplexer”. This is a DS3 to T1 mux, that can rearrange a DS3 framing signal into 28 T1 framing. It offers cost-effective DS3 bandwidth consolidation, M13 and C-bit signaling support, and an external DS3 clock option. Sangoma followed this with our “STM1 Multiplexer” in the first fiscal quarter of 2013.

Future Products

Sangoma is actively developing more new products for release over the next one to two years. Such products will lead Sangoma into additional new markets as the Company diversifies its portfolio. This will include further software applications, more ‘full solution’ appliances, and of course additional card based products. For example, subsequent to our second quarter, Sangoma released its full line of Session Border Controllers in February 2013. In addition to developing its own products, Sangoma will continue to consider further acquisitions, some of which may provide additional products.
OVERALL PERFORMANCE

Financial

Sales for the second quarter of fiscal 2013 were $2.76 million, down from $3.02 million in the immediately preceding quarter and from $3.43 million in the same quarter last year.

Gross profit was $1.87 million for the quarter or 68% of revenue, in line with margin percentages experienced over recent quarters and consistent with the company’s expectations.

Total operating expense for the first quarter was $2.20 million, slightly down from the $2.32 million recorded in the same quarter of fiscal 2012, due to lower sales.

Operating loss was $0.33 million for the quarter, compared to the operating profit of $0.19 million during the same quarter last year, driven primarily by the reduction in revenue and associated gross profit.

Net loss for the quarter ended December 31 2012 was $0.25 million (-$0.009 per share fully diluted), compared to net income of $0.17 million ($0.006 per share fully diluted) for the quarter ended December 31, 2012.

For the six months of fiscal 2013 to date Sangoma’s revenue of $5.78 million was 11% lower than the same period of 2012 resulting almost entirely from the drop in the second quarter described above. Net loss of $0.32 million which was $0.95 million lower than the net income of $0.63 million earned in the first half of fiscal 2012, and resulted from the lower revenue, lower gross margin and the impact of a $0.52 million foreign exchange gain realized in the second quarter of last year not repeating this year. Total operating expense was otherwise only 3% higher than the prior year and has stabilized as expected.

Sangoma continues to have a very strong balance sheet, with working capital of $10.986 million on December 31, 2012 as compared to $11.39 million on June 30, 2012, and a solid cash balance of $3.38 million.

Operational

Sangoma is a leading provider of hardware and software components that enable or enhance IP Communications Systems for both telecom and datacom applications. Enterprises, SMBs and Carriers in over 150 countries rely on Sangoma’s technology as part of their mission critical infrastructures. Through its worldwide network of Distribution Partners, Sangoma delivers the industry’s best engineered, highest quality products, some of which carry the industry’s first lifetime warranty.

The Company has been a strong player in the OST business for many years now, and is a respected contributor to open source telephony solutions and contributes back to the OST community regularly. Further, Sangoma’s traditional OST business is well positioned to benefit
from Digium’s Asterisk project beginning to face a credible challenge from other OST offerings. Just one example of such offerings would include FreeSwitch, which is increasingly being used for larger switching applications as well as for PBXs. Sangoma is heavily involved in the development and maintenance of the PSTN interface portion of FreeSwitch, giving the Company a significant competitive advantage in this market.

Sangoma has moved into the commercial, non-OST space through the introduction of our PSTN to SIP Gateway products including our NetBorder offerings, our Vega product line and Microsoft Lync certified products. Several third party applications are using our Gateway products for PSTN connections.

Sangoma is focusing on several strategies to accelerate the Company’s growth, including broadening its product portfolio, addressing new customer segments, targeting developing geographies, and considering selective corporate development opportunities such as the acquisition of the assets of VegaStream on August 22, 2011.

As part of our strategy to broaden the product portfolio, Sangoma is actively developing new products for release into new markets. This includes further software applications, more ‘full solution’ appliances, additional board-based products, and “IP-only” devices such as Session Border Controllers launched in February 2013.

**Innovation**

Sangoma invests in Research and Development (“R&D”) to develop new products and to improve existing offerings. Our focus is on ensuring the majority of R&D spending is on new product development. During fiscal 2012, Sangoma dramatically accelerated the rate of new product introduction, and released many more new products to the market than in prior years and this is continuing into fiscal 2013. The schedule of new products released is as follows:

| Fiscal 2012  | • T3 Mux Appliance  
| Jul 11 – Jun 12 | • Version 4 of NetBorder SS7 Media Gateway  
| | • Vega 50, 400 and 5000 series Gateways  
| | • NetBorder Express Microsoft Lync Certification  
| | • NetBorder SS7 VoIP Gateway Appliance  
| | • W400 GSM Board  
| | • Vega 100 and 200 Gateways  
| | • NetBorder Transcoding Gateway  
| | • NetBorder Lync Express Appliance  
| | • Vega 400 Session Border Controller  
| | • A116 16-Span Digital Telephony Interface Board  
| | • B500 BRI Board  
| | • STM1 Mux Appliance  
| Fiscal Q1 2013  | • Call Progress Analysis for Asterisk Systems  
| Jul 12 – Sep 12 | • NetBorder SS7 Gateway Release 5.0  
| Fiscal Q2 2013  |  
| Oct 12 – Dec 12 |  

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Subsequent to the quarter end the Company launched a complete family of Session Border Controllers. The new SBCs target both Carrier and Enterprise customers. Sangoma’s progress since Fiscal 2012 from a company that had historically released few new products each year, to a company capable of developing 10 or more new offerings annually is a solid demonstration of Sangoma’s strengthening engineering capability.

Further, the Company has consciously investigated some higher growth product categories. We want to develop engineering expertise in these new areas and to identify product opportunities that combine Sangoma’s expertise and intellectual property in faster growing markets. Our plans include products in all the following categories: wireless, optical networks, social, video and cloud. The first of these products was released in 2012 (W400 wireless board). The second, our STM1 mux with optical interface commenced shipping in quarter one of fiscal 2013. Sangoma’s third product in these new areas will be a video offering.

Sales and Marketing

Since the beginning of Fiscal 2012 the Company has steadily increased its investment in, and focus on, sales. Sangoma has sales professionals across all key geographic regions to identify and engage additional local distributors and to address opportunities with larger customers such as carriers and OEMs. Shortly after the end of the second quarter the Company attracted a deeply experienced Vice President to lead sales efforts to Carriers.

Sangoma continues to use a dual sales path to customers: direct sales to large customers (typically Original Equipment Manufacturers (“OEMs”) and Carriers) and distribution to others.

Carriers are typically telcos, ISPs, ITSPs, wireless/mobile operators, service providers who resell services using either their own networks or those of others. All of these organizations are potential customers for Sangoma.

OEM partners are companies that “design in” Sangoma products as a component of the OEM’s solution. OEM customers tend to be committed participants in their given markets and to have longer term focus. It is important to reach these potential customers in the early days of any project to secure ‘design wins’ and to have sales and marketing programs that will ensure close intercompany collaboration during development and sales development cycles that may last as long as three years.

In other cases, we utilize a distributor to reach the full breadth of customers in markets where such distributors have established relationships. For Enterprise and SMBs, the Company has built a network of two-tier distribution where Sangoma sells to a distributor and the distributor sells to resellers. These resellers then sell, install and support the final end users. Utilizing regional distributors to develop their own network of resellers supported by Sangoma sales and marketing efforts has proven very successful. The impact of lower margins from a two tier distribution model is offset by the net new growth of sales which distributors bring to Sangoma as well as reducing the cost of handling relatively small orders. Sangoma’s OST product buyers are often smaller resellers which are well serviced through online resellers and distributors. Distribution channels require frequent attention to keep Sangoma as the premier supplier in a crowded product marketplace. Sangoma has implemented several incentive programs with distributors and has developed a comprehensive set of channel promotion programs to incent and reward its distribution partners for performance and behaviours that Sangoma believes will grow its revenue.
Sangoma is also increasing its focus on, and investment in, Marketing including the launch of the Company’s new website in February 2013 subsequent to the end of its fiscal second quarter. The marketing team has assembled corporate marketing programs to promote the Company more aggressively and to convey the message that through Sangoma ‘Everything Connects’. The Company is now utilizing various marketing techniques typical of technology firms like Sangoma to generate much more awareness of the Company and its new products. That includes participation in tradeshows, speaking at selected industry events, attending specialized seminars run by our distribution channel and other partners, investing in electronic marketing strategies (eg. web presence, social media and blogging, on-line advertising, SEO/SEM, etc), conducting lead generation campaigns, and creating thought leadership pieces. The Sangoma partner portal is continuing to develop as a place where approved application partners, distributors and resellers of Sangoma can get access to product information, online pricing/purchasing, co-marketing material, sales tools and other privileged partner information.

RESULTS OF OPERATIONS

SUMMARY OF RESULTS FOR THE SECOND QUARTER OF FISCAL 2013

Sales

Sales for the quarter ended December 31, 2012 were $2.76 million, 20% below the $3.43 million for the quarter ended December 31 2011. In accordance with its strategy of introducing new products to offset any decline in its traditional business and to add new sources of product revenue to drive growth, Sangoma is generating approximately one third of its revenue from products introduced during the last two years. The decline in quarterly revenue from the prior year was due to a few significant new orders anticipated in the second quarter not closing in time and to certain existing customers purchasing less this quarter than in the same quarter a year ago due to constrained capital spending or their own product life cycles.

Cost of Sales and Gross Margin

The cost of sales for the quarter ended December 31, 2012 was $0.89 million compared to $0.93 million for the quarter ended December 31, 2011. Gross margin for the second quarter ended December 31, 2012 was 68% of revenue, 5% lower than that recorded in the same period of Fiscal 2012, but in line with percentages experienced over recent quarters and consistent with the Company’s expectations. Gross profit for the second fiscal quarter of 2013 was $1.87 million, 25% lower than the $2.51 million realized in the second quarter of fiscal 2012, driven by lower revenue and margin percent.

Operational expense

Under IFRS costs are allocated to the respective departments except for the impact of foreign exchange which can result in material swings between time periods.
Selling and Marketing
Selling and marketing expenses were $0.69 million for the quarter ended December 31, 2012 as compared with $0.61 million for the quarter ended December 31, 2011. Further investment in sales and marketing is being made in order to foster growth in revenue from new and existing customers across the broader range of products introduced in the last few quarters.

Research and Development
Certain development costs are capitalized each period and amortized on a straight-line basis over three years (see the Notes to the Annual Audited Consolidated Financial Statements available at www.sedar.com). The engineering expense incurred and the development costs amortized during the three months ended December 31, 2012 totaled $0.72 million. This is a slight decrease from the $0.73 million recorded in the second quarter of fiscal 2012.

General and Administration
General and Administration expenses were $0.80 million for the quarter ended December 31, 2012 a decrease of 8% over those for the same period ended December 31, 2011 ($0.87 million).

Foreign Exchange
For the quarter ended December 31, 2012, there was a foreign exchange gain of $0.02 million as the United States dollar marginally strengthened against the Canadian dollar. In the second quarter of fiscal 2012 there was a foreign exchange loss of $0.10 million. The swing between years was a favourable $0.12 million.

Total operational expense
Operating expense for the second quarter was $2.20 million, down from the $2.32 million in the same period last year accounted for by the amount of the foreign exchange. During fiscal 2011 and 2012 Sangoma’s primary focus was to expand its product portfolio and bring new products to new markets. Engineering resources and spending were allocated accordingly. In fiscal 2013, we have shifted some of that spending to provide expanded sales capability and pre/post sales engineering to new customer trials and integration activities to support the newly enhanced sales teams.

Operating Income (before financing and acquisition related expense)
Operating Loss for the quarter ended December 31, 2012 was $0.33 million versus $0.19 million profit in the second fiscal quarter of 2012, driven primarily by lower sales.

Net Income and Comprehensive Income
Net income and Comprehensive income for the quarter ended December 31, 2012 was a $0.25 million loss (-$0.009 per share fully diluted) compared to $0.17 million profit ($0.006 per share fully diluted) for the same quarter ended December 31, 2011.
SUMMARY OF RESULTS FOR THE FIRST SIX MONTHS OF 2012

Sales for the six months ended December 31, 2012 were $5.78 million, down by 11% from $6.45 million in the same period last year.

Gross Margin

Gross margins for the six months ended December 31, 2012 were 70%, 3% down from the same period in fiscal 2012 reflecting the ongoing change in product mix away from legacy board products to the newly introduced gateways and appliances, consistent with the Company’s expectations. Gross profit of $4.03 million was 14% below the $4.70 million in fiscal 2012 resulting from the above revenue and margins.

Operational expense

Under IFRS costs are allocated to the respective departments except for the impact of foreign exchange which can result in material swings between time periods.

Selling and Marketing
Selling and marketing expenses were $1.24 million for the six months ended December 31, 2012 as compared with $1.17 million for the six months ended December 31, 2011, an increase of 6% reflecting the ongoing incremental investment in seeking new revenue from existing, new and geographically diverse customers.

Research and Development
Certain development costs are amortized on a straight-line basis over three years (see the Notes to Consolidated Interim Financial Statements). The engineering expense incurred and the development costs amortized during the six months ended December 31, 2012 totaled $1.53 million. This is an increase of 14% over the $1.34 million incurred in the first six months of fiscal 2012. This increase in R&D spending reflects in part the higher investment to bring more new products to market more quickly and the engineering support to assist our sales organization in having products trialled and certified in new customers’ networks.

General and Administration
General and Administration expenses were $1.53 million for the six months ended December 31, 2012 a decrease of 7% over those for the same period ended December 31, 2011 ($1.65 million).

Foreign Exchange
For the six months ended December 31, 2012, there was a foreign exchange loss was $0.06 million versus a gain of $0.46 million in the first six months of fiscal 2012.

Total operational expense
Total operational expense, before acquisition related costs, was $4.35 million for the first six months of fiscal 2013 compared to $3.70 million in the quarters ended December 31, 2011. This is an increase of 18% of which all but 3% was accounted for by the foreign exchange swing.
Operating Income (before financing and acquisition related expense)

Operating Loss for the first six months was $0.32 million versus a profit of $1.00 million in the first six months of fiscal 2012, due to lower revenue (and associated margin) and the impact of the foreign exchange gain from 2012 not being repeated in 2013.

Business Acquisition Costs
There were no business acquisition costs in the first six months of fiscal 2013.

Net Income and Comprehensive Income

Net loss for the six months ended December 31, 2012 was $0.24 million (-$0.008 per share fully diluted) compared to net income of $0.63 million ($0.021 per share fully diluted) for the six months ended December 31, 2011.

Earnings before Interest, Taxes, Depreciation and Amortization (“EBITDA”)

EBITDA for the quarter ended December 31, 2012 was a loss of $0.20 million versus $0.33 million profit for the same period in the prior year.

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<tr>
<td>One time acquisition fees</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>251</td>
</tr>
<tr>
<td>EBITDA</td>
<td>(203)</td>
<td>327</td>
<td>(76)</td>
<td>1,252</td>
</tr>
</tbody>
</table>

The above table shows the reconciliation of Net Income (Loss) and total comprehensive income (loss) to EBITDA.
QUARTERLY RESULTS TRENDS

When measured in source currency (predominantly US$), sales in the quarter ended December 31, 2012 were 24% lower than those of the previous year and well below expectations.

Sales and Net Income by Quarter

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$3,119</td>
<td>$3,247</td>
<td>$3,012</td>
<td>$3,435</td>
<td>$3,609</td>
<td>$3,707</td>
<td>$3,016</td>
<td>$2,760</td>
</tr>
<tr>
<td>Gross Margin</td>
<td>$2,270</td>
<td>$2,441</td>
<td>$2,192</td>
<td>$2,505</td>
<td>$2,414</td>
<td>$2,357</td>
<td>$2,160</td>
<td>$1,873</td>
</tr>
<tr>
<td>Operating Expense</td>
<td>$1,896</td>
<td>$2,085</td>
<td>$1,381</td>
<td>$2,317</td>
<td>$2,319</td>
<td>$2,397</td>
<td>$2,150</td>
<td>$2,202</td>
</tr>
<tr>
<td>Operating Income</td>
<td>$381</td>
<td>$356</td>
<td>$811</td>
<td>$188</td>
<td>$96</td>
<td>-$41</td>
<td>$10</td>
<td>-$329</td>
</tr>
<tr>
<td>Net Income</td>
<td>$278</td>
<td>-$4,385</td>
<td>$457</td>
<td>$169</td>
<td>$100</td>
<td>-$312</td>
<td>$15</td>
<td>-$254</td>
</tr>
<tr>
<td>Net Earnings per Share</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-diluted basis</td>
<td>$0.009</td>
<td>$0.146</td>
<td>$0.015</td>
<td>$0.006</td>
<td>$0.003</td>
<td>$0.011</td>
<td>$0.000</td>
<td>-$0.009</td>
</tr>
<tr>
<td>fully diluted basis</td>
<td>$0.009</td>
<td>$1.145</td>
<td>$0.015</td>
<td>$0.006</td>
<td>$0.003</td>
<td>$0.010</td>
<td>$0.000</td>
<td>-$0.009</td>
</tr>
</tbody>
</table>

In accordance with Sangoma’s stated strategy, the Company commenced a more extensive investment in product development during fiscal 2011 and fiscal 2012. This has resulted in more than 10 new products being delivered over the last several quarters, including a line of Session Border Controllers just released in February 2013. In addition, a new emphasis on sales and marketing was implemented to expand the Company’s traditional channels and to address new customer segments as part of a multi-year plan to grow both top and bottom lines. Operating expense is now close to the level expected in order to seek that growth and increase sales to new customers.
LIQUIDITY

Sangoma remains solidly liquid. As of December 31, 2012 the Company had current assets of $12.16 million and current liabilities of $1.20 million, resulting in working capital of $10.96 million, as compared to $11.38 million on June 30, 2012. Cash and equivalents as at December 31, 2012 were $3.38 million as compared to $5.02 million as at June 30, 2012.

The cash outflow for the second quarter resulted from the operating loss, payment of some liabilities and a very slight increase in Accounts Receivable compared to the balance as at September 30, 2012.

Accounts Receivable of $4.29 million on December 31, 2012 was $0.21 million lower than for June 30, 2012. Two accounts have moved into the 90 day category this quarter but both are considered low risk and payments to Sangoma have been delayed by the timing of their receipts from large carriers. The remaining large customer balance over 90 days has been referred to our accounts receivable insurer. The 10% deductible has been added to the allowance for doubtful accounts this quarter.

Inventory was $3.61 million on December 31, 2012, up $0.57 million from June 30, 2012. The bulk of the increase is related to the manufacture and stocking of our new appliance-based products, which were mostly introduced in the last year.

The Company continues to seek additional growth in revenue and to make investment in sales/marketing and new products. There are no existing or anticipated defaults or arrears on lease payments, or interest. Management of the Company believes that the current working capital and expected funds generated from operations will be sufficient to meet the operating and planned capital expenditures of the Company for the foreseeable future.

Following the second quarter results, the Company conducted an impairment test and considers there not to be any impairment of intangible assets at this time.

CAPITAL RESOURCES

There are no commitments for capital expenditures at this time.

OFF-BALANCE SHEET ARRANGEMENTS

There are no off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of Sangoma.

RELATED PARTY TRANSACTIONS

Except as disclosed, the Company is not party to any material transactions with related parties. The Chairman of the Board of Directors, who is also a significant shareholder of the Company, has a contract through Entropy Control Ltd. to provide certain services to Sangoma including input to the preparation of the Company’s Scientific Research and Experimental Development tax claim.
PROPOSED TRANSACTIONS

There are no proposed asset or business acquisitions as at the date of this MD&A.

FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

Sangoma has determined the estimated fair value of its financial assets and liabilities based on generally accepted valuation methods.

Short-term financial instruments
Cash and equivalents, trade receivables, sales tax receivables, investment tax credits receivable, accounts payable and accrued liabilities and term loan are short-term financial instruments whose fair value approximates their carrying amount on the balance sheet due to their near-term maturities. The Company does not otherwise rely on financial instruments to satisfy its capital requirements.

OUTSTANDING SHARE DATA

During the quarter ended December 31, 2012 the Company purchased 459,000 shares on the open market under the Normal Course Issuer Bid enabling the Company to purchase up to 5% (1,491,890) of the issued and outstanding common shares as of December 16, 2011. As of both December 31, 2012 and the date hereof, there are 29,079,809 issued and outstanding common shares of Sangoma. As of February 25, 2013 Sangoma has outstanding options to acquire 4,301,660 common shares.

SIGNIFICANT EVENTS

None

POST REPORTING EVENTS

None.

ADDITIONAL INFORMATION

Additional information relating to the Company is filed electronically on SEDAR at www.sedar.com.
GLOSSARY OF TERMS

Analog
Analog telephony is the telephone system that dates back to the original experiments by Alexander Graham Bell. The voice signal is picked up by a microphone and transmitted to the central office. Voice signals from the central office consist of voltages that drive a headset to produce sound. Analog means that the voice pressure signals are represented by voltages levels on the line.

API
Application Program Interface: An API is a purpose-built interface that allows third party software to interact with a particular application. A typical API is the user interface for Windows that allow programmers to write programs for Windows that use all its built-in utilities. APIs do not depend on revealing source code, in general. They are usually well documented and include sample programs that make development easy.

Codec
In the telephony context a codec is a mechanism of digitally encoding voice. On the PSTN a voice channel takes up 64kbps in a codec standard called G.711. Cell phones use a codec called GSM that compress the voice further so that a GSM call consumes about 24kbps. Other compressed codecs are used in VoIP to conserve bandwidth. These include standards such as G.729, G.723. Most audio codecs are lossy, in that some of the voice quality is degraded by the compression. On the other hand, as bandwidth becomes cheaper, VoIP allows one to use other codecs that in fact use more bandwidth than the PSTN, the so-called broadband codecs that have DVD-like voice quality.

Digital telephony
In the modern PSTN only the “last mile” line to the customer is still analog, all other internal parts of the network are digital. Digital in this case means that at the central office the analog signal from the subscriber’s telephone is sampled digitally, converting the line voltages to a series of numbers that can be easily transmitted error free over long distances. See T1, E1 below.

Gateway
In the telephony context this is typically a separate unit with its own case and power supply that provides VoIP-to-PSTN services for a VoIP network. Almost all gateway devices use SIP interfaces to the VoIP system over Ethernet and have analog or digital telephony interfaces that connect to the PSTN. VoIP gateways are available from many manufacturers including Audiocodes, Cisco, Grandstream, Patton Electronics and many others.

ISDN
Integrated Services Digital Network (ISDN) is a set of communications standards for simultaneous digital transmission of voice, video, data, and other network services over the traditional circuits of the public switched telephone network. Of the many variations of ISDN, Sangoma supports BRI (Basic Rate Interface) which is essentially an all-digital replacement for ordinary analog lines and PRI (Primary Rate Interface) which is used over T1 and E1 lines. BRI is very popular outside of North America. PRI is used worldwide.

ISP
Internet Service Provider

ITSP
Internet Telephony Service Provider who offer telecommunications service including voice over internet type connections.
**IVR**
Interactive Voice Response: IVR systems use the phone to navigate a menu, for example those used by banks to allow access to customer’s account information. IVR systems have typically been driven by dial tones as the buttons on your phone are pressed, but increasingly they are using voice recognition for navigation.

**Open Source**
Open Source software is distributed free subject to certain conditions. Open Source licenses usually stipulate that source code must always be distributed or made available, and any improvements in the code have to be donated back to the community. It is possible to have dual licensing: Open Source to the community and also a closed, commercial license of the same or similar software.

**NetBorder**
This is the trade name of a Sangoma SIP to PSTN gateway product. It includes several other functions in addition to the PSTN gateway function. The mass marketed version is known as NetBorder Express or NBE.

**PSTN**
Public Switched Telephone Network: This is the standard telephone network that has been in operation for many decades. A telephone or FAX or PBX or other telephony device is generally connected to an analog line at a wall plug, which is connected by “last mile” cabling to the central office. The analog signal from the device is converted to a digital signal at the Telco central office and is multiplexed, 24 simultaneous voice channels per line (in North America) onto a T1 for onward transmission. At the other end of the line the digital channel is reconverted to analog for transmission over the “last mile” to the receiving phone or other device.

**Signalling**
Call setup and tear down is remarkably complicated, involving such things as responding to the different tones as well as generating them, caller identification and handling the different features like hook-flash and voicemail properly. There are different signalling mechanisms for different types of circuits. Analog circuits use tones such as out-of-order, busy, ringing as well as the dialling tones. T1 lines often use a data protocol called ISDN PRI, where packets of control data are exchanged on a separate data channel. ISDN PRI is a simplification of the general signalling protocol used internally by the telecommunications networks known as SS7. In all cases signalling has to be exactly compatible with what the Telco expects, so interoperability and standards are important.

**SIP**
Session Initiation Protocol: SIP is the emerging standard signalling protocol for VoIP, though it has much broader applications. SIP is responsible for setting up and teardown of two party and multiparty calls, as well as a host of management features. To a great and increasing extent, VoIP calls are SIP based.

**T1, E1**
A T1 line is a circuit that carries 24 digital telephone calls simultaneously. At higher densities, 28 T1s are aggregated into a T3 line carrying 672 calls. Larger offices can also connect to the central office via T1 directly, so as to have only one circuit for up to 24 calls. T1 is standard in North America and Japan while E1 is the standard in the rest of the world. E1 carries 30 channels of digitized voice per line.

**Unified Communications**
Unified communications is a concept in which voice, email, messaging, video and any other type of communication are all considered forms of data that can be combined, manipulated and used in intelligent applications in a seamless way.

**VoIP**
Voice over IP: The transfer of voice traffic over the Internet Protocol (IP). IP is used universally for all networking including local area networks and private networks, not just the Internet. So VoIP is not necessarily voice over the Internet, but voice over general data networks.