



*Management discussion and analysis of financial
condition and results of operations for the
three months ended September 30, 2022*

TABLE OF CONTENTS

INTRODUCTION	3
OVERVIEW	4
RESULTS OF OPERATIONS	13
QUARTERLY RESULTS OF OPERATIONS	17
LIQUIDITY AND CAPITAL RESOURCES	18
CONTRACTUAL OBLIGATIONS	19
USE OF PROCEEDS FROM EQUITY FINANCINGS	20
OFF-BALANCE SHEET ARRANGEMENTS	20
RELATED PARTY TRANSACTIONS	20
CRITICAL ACCOUNTING POLICIES AND ESTIMATES	20
FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS	21
SIGNIFICANT EVENTS	21
OUTSTANDING SHARE INFORMATION	21
GUIDANCE	22
CONTROLS AND PROCEDURES	23
GLOSSARY OF TERMS	24

INTRODUCTION

As used in this Management Discussion and Analysis (“MD&A”), unless the context indicates or requires otherwise, all references to the “Company”, “Sangoma”, “we”, “us”, or “our” refer to Sangoma Technologies Corporation, together with our subsidiaries, on a consolidated basis as constituted on September 30, 2022. The MD&A compares the financial results for the fiscal first quarter of 2023 with those of the same period in the previous year. This MD&A should be read in conjunction with Sangoma’s audited annual consolidated financial statements and related notes for the year ended June 30, 2022 (“Financial Statements”), which have been prepared in accordance with International Financial Reporting Standards (“IFRS”). All amounts are in millions of United States dollars except where otherwise indicated.

Additional information about us, including copies of our continuous disclosure materials, is available on our website at www.sangoma.com, through the EDGAR website at www.sec.gov or through the SEDAR website at www.sedar.com.

This MD&A is dated as of November 10, 2022.

NON-IFRS MEASURES

This MD&A contains references to certain non-IFRS financial measures such as Adjusted Operating Income, Adjusted EBITDA and Adjusted Cash Flow. 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. “Adjusted Operating Income (Loss)” means IFRS income (loss) before interest expense (net), business integration costs, exchange listing expense, change in fair value of consideration payable, business acquisition costs, goodwill impairment and income taxes. “Adjusted EBITDA” means earnings before income taxes, interest expense (net), share-based compensation, depreciation (including for right-of-use assets), amortization, business integration costs, exchange listing expense, business acquisition costs, goodwill impairment and change in fair value of consideration payable. Adjusted EBITDA is a measure used by many investors to compare issuers. “Adjusted Cash Flow” means net cash flows from operating activities as defined by IFRS less the capitalized development costs that Sangoma amortized during the period, plus interest expense (net), business acquisition costs paid, business integration costs, and exchange listing expense. We believe that Adjusted Operating Income (Loss), Adjusted EBITDA and Adjusted Cash Flow 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, taxed, depreciated or amortized. Investors are cautioned that non-IFRS financial measures, such as those presented herein, should not be construed as an alternative to net income or cash flow determined in accordance with IFRS. The reconciliation of the closest IFRS measure to each non-IFRS measure is set out on pages 13, 17, and 18 herein.

FORWARD-LOOKING STATEMENTS

This MD&A contains forward-looking statements, including statements regarding the expected fiscal 2023 financial results and the future success of our business, development strategies and future opportunities.

Forward-looking statements are provided for the purpose of presenting information about management’s current expectations and plans relating to the future and readers are cautioned that such statements may not be appropriate for other purposes. Forward-looking statements include, but are not limited to, statements relating to management’s guidance on revenue and Adjusted EBITDA, statements relating to expected inventory levels, statements relating to future lease and interest payments, statements relating to the impact of the continuing COVID-19 pandemic, 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.

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 and contingencies. Some of the risks and other factors which could cause results to differ materially from those expressed in the forward-looking statements contained herein include, but are not limited to, risks and uncertainties associated with the integration of NetFortris Corporation (“NetFortris”), the remediation of material weakness identified in our internal control over financial reporting, the impact of the continuing COVID-19 pandemic, changes in exchange rate between the United States dollar and other currencies, expectations regarding the amount of frequency of impairment losses, including as a result of the write-down of intangible assets, including changes in technology, changes in the business climate, changes in the regulatory environment, the decline in the importance of the PSTN, new competitive pressures, the impact of global supply chain delays, the retention of key staff, the increase in cost and availability of our components and materials, and the impact of changes to interest rates and the other risk factors described in our most recently filed Annual Information Form for the fiscal year ended June 30, 2022. See also “Guidance” and “Controls and Procedures” below for more information on certain of these risks and uncertainties.

The forward-looking statements contained in this management’s discussion and analysis are expressly qualified by this cautionary statement. Sangoma undertakes no obligation to update forward-looking statements if circumstances or management’s estimates or opinions should change except as required by law.

OVERVIEW

Sangoma’s products and services are used by leading companies throughout the world and in leading UC, PBX, IVR, contact center, carrier networks, and data communication applications worldwide. Sangoma’s portfolio of products also enable service providers, carriers, enterprises,

SMBs, and OEMs alike to leverage their existing infrastructure for maximum financial return, while still delivering the most advanced applications and services from the latest technologies available. Please refer to the Glossary of Terms for detailed definitions of terms used throughout this MD&A.

Communications as a Service (CaaS) Portfolio

Sangoma is a trusted leader in delivering value-based Communications as a Service solutions for businesses of all sizes. The value-based communications segment includes small businesses to large enterprises who are looking for all the advantages of cloud-based communications at a fair price. Sangoma's current Communications as a Service offerings are typically offered with monthly, yearly, or multi-year contracts and include:

- Unified Communications as a Service ("UCaaS")
- Trunking as a Service ("TaaS")
- Contact Center as a Service ("CCaaS")
- Communications Platform as a Service ("CPaaS")
- Video Meetings as a Service ("MaaS")
- Collaboration as a Service ("CollabaaS")
- Desktop as a Service ("DaaS")
- Access Control as a Service ("ACaaS")

Unified Communications as a Service (UCaaS)

Sangoma's UC solutions are business communication systems (PBX's with advanced UC features, such as presence/chat, conferencing, mobility, fax, and more) that can be deployed on-premise or hosted in the Cloud, allowing businesses to select the best option for their needs. Unified Communication systems, because of their mobility features such as having the business phone number ring on an app on your smartphone and/or desktop and instant messaging capability, enable remote work and work from home much more efficiently. Sangoma's Unified Communication solutions fully integrate with our phones, soft clients, and network interoperability products to provide a fully interoperable solution from a single vendor.

Cloud-Based Business Phone Solution

Sangoma offers its customers full-scale cloud-based Unified Communications solutions. With Sangoma, businesses can get contact center, mobility, softphone, call control, and productivity features included for every user at a reasonable price. Sangoma's hosted phone service delivers the customer experience businesses demand at an affordable price point. Customers can also choose pre-provisioned phones that customers simply plug into their network.

On-Premise Business Phone Solution

Sangoma also offers the more traditional on-premise UC phone system, for businesses still wanting to deploy their business phone system on premise. Whether deployed on a dedicated appliance or in the customer's virtual environment, Sangoma provides the power and connectivity necessary.

IP Deskphones, Headsets and UC Clients: Sangoma provides desktop and softphone collaboration clients that integrate seamlessly with our UC solution offerings and deliver UC features (presence, contacts, chat, calling, audio and video conferencing, etc.) from a single application, on any device, at any location.

IP Deskphones: Sangoma offers a full line of phones that work with both our cloud and on-premise systems that are perfect for every user type, from casual to call center to managers and executives.

Sangoma's product line includes entry-level, mid-range, and executive-level phones. All models include HD Voice and plug-and-play deployment. Sangoma's range of IP phones are customized to seamlessly integrate with all of our UC Systems and provide zero touch installation, simplified system management, and instant access to a wide range of features.

Headsets: Sangoma also offers headsets that either work in conjunction with the desktop phones (by plugging into the phone) or work in conjunction to our desktop soft client (by plugging directly into the computer). These headsets enable roaming of up to 325 feet from the phone or desk computer.

UC Clients and Softphones: Unified Communication Clients (or softphones) are used to make or receive phone calls with your business phone number and can be used as your main phone or as an extension of your desk phone. They are available as an app on your smartphone or computer. These UC clients have enabled employees to work remote seamlessly by enabling phone calls to customers and other employees as if they were in a physical office. Sangoma offers UC clients with all of our Unified Communication / Business phone system product lines.

Trunking as a Service (TaaS)

SIP trunks deliver Internet-based telephony services to businesses using their existing internet connection, eliminating the need for separate traditional PSTN or digital telecom connections. SIP trunking is fast becoming the technology of choice to interconnect an IP PBX system to a telephone company. The main drivers are cost efficiencies (over fixed lines such as ISDN or analog lines from incumbent telcos) and end-to-end UC features/transparency. Cost efficiencies are realized because SIP trunking uses already-available broadband connections at customer premises. Sangoma offers both retail and wholesale SIP Trunking which allows our customers to choose the service that best meets their needs. Either service offers DID's and number porting.

Retail SIP Trunking

Retail SIP trunking offers predictable monthly expenses with pricing based per trunk. SIPStation, Sangoma's retail SIP trunking service, is seamlessly integrated into our various UC platforms, making it easy to get up and running. It also includes an integrated fax service option, enabling a business to send and receive faxes from a web interface or from a local fax machine. Typically, small to mid-sized businesses and enterprises would utilize this type of service.

Wholesale SIP Trunking

Sangoma's wholesale SIP trunking offer is now available following the acquisition of VoIP Innovations. Pricing for wholesale SIP trunking is usage-based but with a larger monthly minimum commitment. This includes origination, termination, SMS/MMS, e911, and fraud mitigation. Typically, very large businesses or service providers who resell SIP trunks would utilize this type of service.

Fax as a Service

Faxing remains an important communications tool, yet VoIP networks are sometimes unable to send faxes reliably because fax standards are based on very specific timing that can be interrupted in VoIP systems, especially where there is substantial latency. Sangoma's FoIP service, FaxStation, is a hosted service to remedy this problem, available with our TaaS. It features a telecom appliance with up to four analog connections for fax machines and operates in concert with Sangoma's fax

server data center to encrypt and package the fax communication to make it fail-safe. This is particularly useful for small businesses that rely on fax communications but also for industries with challenging network conditions, such as mining, oil rigs, and ship-to-shore over satellite.

Contact Center as a Service (CCaaS)

Contact Center as a Service (CCaaS) is our cloud-based contact center, or customer experience, offering. It provides robust contact center capabilities running in various ways: either standalone, in conjunction with our other cloud services (such as UCaaS), or integrated “inside” our UCaaS product in a simplified version. This latter solution is intended for ‘departmental’ type usage, by companies that are not pure-play contact centers, but that might have a department such as customer service or technical support that operate inside that company almost like a mini contact center.

Communications Platform as a Service (CPaaS)

Communications Platform as a Service (CPaaS) allows developers to easily build services and applications using real-time communication features, such as voice, video, chat, and SMS, via the cloud. Our platform enables Sangoma, our integrator/developer partners, and advanced customers to build new communications services based on voice, rest APIs, WebRTC, and SMS. When running an application on a CPaaS platform, performance is critical. To ensure peak performance, Sangoma offers its own SIP trunking service, providing optimized connectivity in addition to easy access to phone numbers. Sangoma also sells a series of ‘applications’ (or Apps) based upon our CPaaS product that customers can purchase.

Video Meetings as a Service (MaaS)

Sangoma Meet is our video meetings, cloud-based service accessible from any device, be it desktop or mobile. It enables file sharing on screen so collaboration with co-workers is enhanced, integrates seamlessly with your calendar, and enables PSTN phone calls. Sangoma Meet is available in free and chargeable tiers.

Collaboration as a Service (CollabaaS)

Collaboration as a Service (CollabaaS) is Sangoma’s cloud-based offering for enabling people to work together more productively. This service is called TeamHub. It allows users to interact using any of the various forms of communications, including chatting, calling, and video. TeamHub integrates Sangoma’s softphone client software applications (desktop and mobile) and is designed to allow communications to start in one mode (such as chat), and move through different modes very elegantly, in effect ‘upgrading’ that mode of communications to a voice call in real time, and/or upgrading that voice call to a video meeting.

Desktop as a Service (DaaS)

Sangoma’s Desktop as a Service helps companies adapt to today’s modern, flexible, and remote workforce. It is the most secure method for staff to access their tools and applications from any location to do their work, delivers simplified IT administration and cuts down on the CapEx of deploying PCs. Sangoma is one of the only companies that can offer communications capability inside a DaaS product.

Access Control as a Service (ACaaS)

At Sangoma, this product offering is called SmartOffice Access. The SmartOffice product line is to be a family of IoT based services, and it was launched first with Access Control. Access Control is a means of controlling access to one's office or parts of an office and was traditionally done via the well-known white 'swipe cards' or fobs. Sangoma is innovating in that space by eliminating the need for such older technologies and extending our experience with mobile apps that so many of our customers and their employees already get from us, as a Softphone. This new mobile allows one to open doors using your smartphone and the app from Sangoma, wirelessly using IoT protocols. No more swipe cards, no more readers, no more wiring behind the walls. This is one of Sangoma's first forays into cloud services that extend our CaaS suite beyond the strict definition of 'communications'.

MSP Portfolio

Sangoma's cloud-based Managed Service Provider ("MSP") offerings deliver mission critical communication services that businesses need and complement our full line of Communications as a Service solutions. The MSP product line is built upon a tightly integrated, enterprise grade, and end-to-end managed network, which is all supported by an expert 24/7 network engineering team. The current MSP offering includes three primary services:

Managed Security: Sangoma provides a cloud-based service, sometimes called Unified Threat Management ("UTM"), whereby the customers network, including voice and data traffic, are secured by intrusion prevention and detection capabilities. The network security service helps protect customers against attacks and data losses from spam, viruses, ransomware, botnets, etc.

Managed SD-WAN: Sangoma offers a cloud-based software-defined approach to managing a customers wide area network. The SD-WAN service enables network redundancy through the ability to manage multiple internet connections from multiple providers, which is seen as one seamless connection for the customer. If one connection fails, the customer does not lose connectivity and has uninterrupted uptime. The service also provides traffic shaping whereby certain types of traffic can be given priority or forced in priority.

Managed Access: Sangoma also provides a robust broadband connectivity solution, including network monitoring, analytics, backup, and a fully PCI-compliant offering for payment card and credit card transactions. Additionally, our Managed Access solution integrates with Managed Security and Managed SD-WAN services, delivering unique capabilities such as secure, end-to-end peering connections to critical destinations (such as Public Cloud sites like AWS and Azure) and Quality of Service commitments.

Network Interconnection Products

In addition to the CaaS and MSP offerings described above, Sangoma also offers network interconnection products. These products connect different types of networks together, such as VoIP networks to PSTN networks, or VoIP networks to mobile networks or different types of VoIP networks.

Session Border Controllers (SBCs)

Anytime two VoIP networks interconnect, issues of security and interoperability arise. SBCs can manage these issues, including provider-to-provider connections, provider-to-enterprise connections, and enterprise-to-enterprise connections. Sangoma's SBCs are available as hardware appliances, as software-only solutions running on a virtual machine in hosted environments, or as

a hybrid of both. The hybrid solution is unique to Sangoma and provides all the flexibility expected from virtual machine capability coupled with the scalability that is found in hardware-based solutions. Sangoma's SBCs have broad interoperability certifications.

VoIP Gateways

VoIP gateways are needed any time voice traffic moves from a VoIP network to a traditional PSTN telephone network. As the traffic traverses these networks, there are issues that need to be resolved regarding both the media (the sound of the caller's voice) and the signaling (the method used to control the media traveling over that connection).

In a service provider or carrier network, much larger gateways perform these same tasks. In addition, there are signaling protocols that are only used when carrier networks communicate with other carrier networks that are not included in the enterprise product line.

All Sangoma's gateways have broad interoperability certifications.

PSTN Interface and Media Processing Boards

Sangoma's complete line of boards connect and interface to the PSTN. Even though IP networks are growing and quickly becoming the standard, the PSTN still exists, and new communication solutions often need to connect to the PSTN. These boards are primarily used by communications solution developers in PC/Server based telecommunications systems that connect to the PSTN. They perform a very similar task to VoIP gateways, but are installed inside the server rather than being stand-alone devices. By providing customers with the option of using a PSTN interface board or a VoIP gateway, Sangoma maximizes flexibility based on installation requirements, particularly when space and power are at a premium. They may also be used in harsh conditions that require ruggedized servers.

Open-Source Software Products

Asterisk and FreePBX

Sangoma is the primary developer and sponsor of the Asterisk project, the world's most widely used open-source communications software, and the FreePBX project, the world's most widely used open-source PBX software.

Sangoma also offers revenue-generating products and services, beyond the open-source Asterisk or FreePBX software, to users of these open-source software projects. The types of products and services Sangoma offers includes software add-ons to Asterisk or FreePBX, IP phones, SIP trunking, cloud-based fax, training, technical support, maintenance, PSTN cards, VoIP gateways, session border controllers, and commercial/hardened versions of the PBX/UC software.

OVERALL PERFORMANCE

Operational

Sangoma Technologies is a trusted leader in delivering cloud-based CaaS and MSP solutions for businesses of all sizes. Customers include companies from small/medium businesses (SMB's) right up to large enterprises who are looking for all the advantages of cloud-based communications and managed network services at a fair price. In addition to those cloud-based Services, Sangoma also has a broad suite of Products to complement its Services.

Enterprises, SMBs and carriers in over 150 countries rely on Sangoma's technology as part of their mission-critical infrastructures. Through a worldwide network of distribution partners, Sangoma delivers high-quality services and products, some of which carry the industry's first lifetime warranty.

Sangoma has always been operated and managed as a single economic entity. There is one management team that directs the activities of all aspects of the Company and it is managed globally by our executive team. As a result, we believe that we have one reporting segment, being the consolidated Company. Over time, this may change as the Company grows and when this occurs, we will reflect the change in our reporting practice.

Revenue

Sangoma primarily generates revenue from Services and Products. Our Services revenue is generated primarily from customers entering recurring revenue agreements. Product revenues are comprised of the sale of products and services that generate non-recurring revenue.

Innovation

As a technology company, Sangoma is continuously working on a large number of projects across its broad portfolio of existing products and services. While the Company has introduced several new additions to its portfolio over the last few years, the majority of the Company's investment in Research and Development ("R&D") is dedicated to sustaining, improving on and enhancing its broad portfolio of existing products and services. Sangoma believes that innovation is essential to a technology company's future. The Company also believes that R&D investment is necessary in order to address the needs of the Company's wide-ranging group of customers (which include business of all sizes including service providers, enterprises, small-medium sized businesses, and original equipment manufacturers) in over 150 countries, to keep pace with technology developments in the cloud communications industry, to meaningfully compete in that industry, and to achieve and maintain market acceptance.

The Company focuses on creating and introducing products to the market as soon as commercially practical and, thereafter, focuses on enhancements to further improve its products. Such product introductions enable the Company to validate product acceptance to some degree, and to get products to market efficiently to start generating revenue. Furthermore, the Company focuses on keeping its product development costs for new projects under control in a number of ways, including by reusing its existing code base where applicable and by leveraging open-source software.

Sangoma continues to invest in R&D to develop new products and to improve existing offerings with spending on R&D increasing each year.

Sales and marketing

R&D is important, but without Sales and Marketing, customers can be too unaware of the advancements that Sangoma has made in innovation. So, Sangoma continues to increase its investment in both Sales and in Marketing, to promote awareness of the Company, to communicate the critical shift from single products to full solutions to cloud, and to drive customer acquisition.

Sales

Sangoma uses a dual sales path ‘go to market’ approach: direct sales to some of our largest customers and indirect distribution to most of our other clients.

- **Direct Sales** is typically used for selling to ‘service providers’, OEMs and large enterprise type businesses.

Service Providers is a broad category of customers that included telcos, ISPs, ITSPs, wireless/mobile operators, MSPs, UCaaS operators, etc. These types of organizations are potential customers for Sangoma.

OEM partners are companies that ‘design in’ Sangoma products as a component of their solutions. OEM customers tend to be committed participants in their given markets and 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 collaboration during product and sales development cycles.

Enterprise customers are the classic ‘larger’ companies who buy products or services for their own use. This type of customer has similar ‘use cases’ to a SMB type customer but is large enough that some prefer to do business directly with Sangoma, the Company often wants a direct relationship with them as well, and they are buying enough for Sangoma to cost effectively service them directly.

- **Indirect Sales:** In most cases, Sangoma uses the indirect or channel model. We value the ‘multiplier effect’ of a channel model (i.e., one of our salespeople sells to dozens of partners who sell to hundreds/thousands of customers), the more ‘local nature’ of a channel partner who is often based quite near to their end customers, and the more cost-effective structure of indirect distribution in a typical sales cycle. In such cases, Sangoma utilizes this indirect distribution model to reach the full breadth of customers, often based upon a two-tier Channel model:

The ‘upper tier’ of the indirect model is typically made up of Distributors or Master Agents, who normally sell not to the end customer, but to the ‘second tier’ of the channel. Master Agents are now sometimes called Technology Service Brokers or Telecom Solution Distributors. This upper tier of the channel tends to be larger organizations and cover broader geographic regions.

The ‘second tier’ of the indirect model is normally made up of Resellers and Agents. Distributors typically sell to resellers, and Master Agents typically sell to Agents. The Resellers and Agents then sell to end users (with some performing other ancillary services such as installation and/or support). The second tier tend to be smaller organizations (though not always) and are usually more ‘local’ in nature.

Sangoma has parts of its sales team that focus on Direct customers, whereas the majority

focuses on the Channel. In the Channel, partners require frequent attention to keep Sangoma 'on their mind' in a crowded product marketplace. Therefore, a portion of the Channel sales team services the distributors and master agents as the upper tier of the channel, while a different part of the team focuses on the resellers/agents. Finally, Sangoma has professional sales teams across all our key geographic regions as well.

Marketing

Sangoma also continues to increase its efforts in marketing. The Company has assembled corporate marketing programs with two key objectives in mind:

- to promote the Sangoma brand and positioning, which included conveying the message about the Company's full solutions and its Cloud-First approach.
- leads generation as one of the front-end steps in customer acquisition.

Sangoma is now using various marketing techniques typical of technology firms to accomplish those two objectives. This includes participation in tradeshow, speaking at selected industry events, attending specialized seminars run by Sangoma's distribution channel and other partners, investing in electronic marketing strategies (e.g., web presence, social media and blogging, online advertising, search engine campaigns, etc.), conducting lead generation campaigns via email/social media/etc., webinars, creating thought leadership pieces, PR, etc.

In addition to the overall corporate messaging, in support of the above two objectives, Sangoma has developed a comprehensive set of channel promotion programs, aimed at the Company's indirect partners described above, both distributors/master agents as well as resellers/agents. The Company seeks to attract new channel partners and to grow the business with existing partners. Sangoma has implemented several incentive programs to reward its channel partners for performance and behaviours that Sangoma believes will grow revenues.

RESULTS OF OPERATIONS

All amounts are in millions of United States dollars except where otherwise indicated.

SUMMARY

The following table outlines our unaudited consolidated interim statements of income (loss) and comprehensive income (loss) for the periods indicated:

	Three month periods ended			
	September 30,			
	2022	2021	Change	Change
	\$	\$	\$	%
Revenue	64.05	51.50	12.55	24%
Cost of sales	20.71	14.63	6.08	42%
Gross profit	43.34	36.87	6.47	18%
Expenses				
Sales and marketing	15.65	12.11	3.54	29%
Research and development	9.43	8.36	1.07	13%
General and administration	19.29	17.27	2.02	12%
Foreign currency exchange (gain) loss	0.04	(0.01)	0.05	-500%
	44.41	37.73	6.68	18%
Income (loss) before interest expense (net), business integration costs, gain on change in fair value of consideration payable and income taxes	(1.07)	(0.86)	(0.21)	24%
Interest expense (net)	1.58	0.65	0.93	143%
Business integration costs	0.05	0.84	(0.79)	-94%
(Gain) loss on change in fair value of consideration payable	(1.58)	0.25	(1.83)	-732%
	0.05	1.74	(1.69)	-97%
Loss before income tax	(1.12)	(2.60)	1.48	-57%
Provision for income taxes			-	0%
Current	0.04	0.37	(0.33)	-89%
Deferred	0.82	(0.67)	1.49	-222%
Net loss	(1.98)	(2.30)	0.32	-14%
Other comprehensive income (loss)				
Items to be reclassified to net income (loss)				
Change in fair value of interest rate swaps, net of tax	0.44	0.04	0.40	1000%
Comprehensive loss	(1.54)	(2.26)	0.72	-32%
Earnings (loss) per share				
Basic	\$ (0.060)	\$ (0.073)	\$ 0.013	-18%
Diluted	\$ (0.060)	\$ (0.073)	\$ 0.013	-18%
Weighted average number (thousands)				
Basic	32,953	31,717	1,236	4%
Diluted	32,953	31,717	1,236	4%
Other pertinent information				
Total assets	488.93	498.53	(9.60)	-2%
Non-current financial liabilities	100.94	106.18	(5.24)	-5%

REVIEW OF OPERATIONS

Revenue

Sales for the first quarter of fiscal 2023 ended September 30, 2022 were \$64.05 million, up 24% from the \$51.50 million in the comparable first quarter of fiscal 2022.

	2022	2021	Change	Change
	\$	\$	\$	%
Service revenues	48.32	35.86	12.46	35%
Percentage of total revenues	75%	70%		5%
Product revenues	15.73	15.64	0.09	1%
Percentage of total revenues	25%	30%		-5%
Total revenues	64.05	51.50	12.55	24%

The year-over-year increase in quarterly revenue primarily resulted from the NetFortris acquisition and our existing Services business continuing to grow and compound. As a result, our Services revenue represented 75% of total revenue this quarter, up from 70% in the same quarter of the prior year, and consistent with our strategic objective.

When compared sequentially, our revenue was down 3% from \$66.3 million in the fourth quarter of fiscal 2022. This decrease is due primarily to typical seasonality effects in the first quarter, the impact of a strong US dollar exchange rate on some international order flow, and some modest softness in Product sales as customers become more sensitive to Capex purchases given current economic headwinds.

Cost of revenue and gross profit

	Three month periods ended			
	September 30,			
	2022	2021	Change	Change
	\$	\$	\$	%
Cost of sales	20.71	14.63	6.08	42%
Gross profit	43.34	36.87	6.47	18%

The cost of sales for the quarter ended September 30, 2022 was \$20.71 million compared to \$14.63 million last year, driven primarily by the addition of the NetFortris business and by the continuing supply chain pressures. Sangoma's cost of sales has been impacted by global supply chain disruptions, for both electronic components and for shipping. In some cases, Sangoma has needed to order further ahead, pay more for electronic components, and to ship product by air versus by sea (at higher cost). Nevertheless, Sangoma was able to fill most customer orders in the first quarter, despite these supply chain pressures.

Gross profit for the quarter ended September 30, 2022 was \$43.34 million, up 18% from the \$36.87 million realized in the quarter ended September 30, 2021. Gross margin for the first quarter of fiscal 2023 was approximately 68% of revenue. This is down slightly from the same quarter last year partly because of the global supply chain pressures referenced and partly due to the slightly lower average margin from the Managed Services products. This level of gross margin is consistent with our expectations for fiscal year 2023.

Operational expense

As permitted under IFRS, costs are allocated by function except for the impact of foreign exchange, which can result in swings between time periods.

	Three month periods ended			
	September 30,			
	2022	2021	Change	Change
	\$	\$	\$	%
Sales and marketing	15.65	12.11	3.54	29%
Research and development	9.43	8.36	1.07	13%
General and administration	19.29	17.27	2.02	12%
Foreign currency exchange (gain) loss	0.04	(0.01)	0.05	-500%
Total Expense	44.41	37.73	6.68	18%

Sales and marketing

Sales and marketing expense was \$15.65 million for the first quarter of fiscal 2023, an increase from the \$12.11 million incurred in the same quarter of fiscal 2022. This was primarily the impact of the addition of the NetFortris sales and marketing expense.

Research and development

A portion of the Company's R&D costs are capitalized each period and amortized on a straight-line basis over three years (see the audited consolidated financial statements and related notes for the fiscal year ended June 30, 2022, available at www.sedar.com and www.sec.gov).

The engineering expenses incurred, and the development costs amortized during the first quarter of fiscal 2023 were \$9.43 million. This was higher than the \$8.36 million incurred in the same quarter last year, mostly as a result of the addition of the NetFortris development team, but lower as a percentage of revenue at approximately 15% compared to approximately 16%. For the quarter ended September 30, 2022, the Company did not have any significant projects that have not yet generated revenue, nor did it have any products or services that are not fully developed, and which are material to the Company.

General and administration

General and administration expenses were \$19.29 million for the quarter ended September 30, 2022, compared to \$17.27 million in the same period of fiscal 2022. The increased spending is driven primarily by the addition of the NetFortris team and the non-cash expense of the additional amortization of the intangible assets acquired.

Foreign exchange

Foreign exchange loss for the quarter ended September 30, 2022 was \$0.04 million, compared to a gain of \$0.02 million in the same period of fiscal 2022.

Total expenses

Total operating expense for the first quarter of fiscal 2023 was \$44.41 million versus \$37.73 million during the same period last year. The primary driver of the increase was the incremental expense

associated with the addition of the NetFortris business, partly offset by cost savings from the integration which began in the fourth quarter of fiscal 2022 and carried through the first quarter of fiscal 2023. Overall, total operating expenses increased by 18% year-over-year this quarter, whereas revenue was up by 24%, consistent with Sangoma's long term approach of growing expenses slightly more slowly than growing revenue, demonstrating our operating leverage.

Adjusted Operating Income (Loss)

Adjusted Operating Loss for the quarter ended September 30, 2022 was \$1.07 million, higher than the loss of \$0.86 million loss in the same period last year, due to the above factors.

Interest

Net interest expense for the quarter ended September 30, 2022 was \$1.58 million, higher than the \$0.66 million in the same period last year, primarily due to the additional interest expense on the new debt from the acquisition of NetFortris, the non-cash accretion expense associated with the consideration payable and from the increases in prevailing interest rates.

Business acquisition costs

There were no business acquisition costs incurred in the quarter ended September 30, 2022 or in the same period last year.

Business integration costs

For the first quarter of fiscal year 2023, Sangoma recorded \$0.05 million of costs directly associated with the reduction of staff between the two companies following the NetFortris acquisition compared to \$0.84 million of integration costs in the same period last year for the Star2Star acquisition. The Company anticipates additional costs in the second quarter of fiscal year 2023 as it continues to finalize the integration.

Consideration payable

As part of the agreement for the purchase of Star2Star, Sangoma processes certain payroll transactions for Star2Star Holdings ("Holdings") option holders each time an instalment of the remaining share consideration is distributed. This gives rise to a tax deduction for Sangoma, the benefit of which is paid to Holdings when it is realized by Sangoma. To account for this, the estimated amount is calculated each quarter and recorded as a deferred tax asset, with the associated liability to Holdings recorded as consideration payable. The amount of the potential payment is tied to Sangoma's share price, the US to Canadian dollar exchange rate and the current US tax rate. As this changes, the Company will update the potential payout. As of September 30, 2022, the changes in these factors gave rise to a gain versus the amount established in the same period of fiscal 2022. An offset equivalent to the gain was included in deferred tax expense. There is no cash exposure to Sangoma since the payment is only due when the tax benefit is actually realized, and the two balances will largely offset each other over time.

Net income (loss)

Net loss for the first quarter was \$1.98 million (\$0.060 loss per share fully diluted), compared to a net loss of \$2.30 million (\$0.073 loss per share fully diluted) for the equivalent quarter ended September 30, 2022.

Adjusted EBITDA

The derivation of Adjusted EBITDA and the reconciliation of net income to Adjusted EBITDA for the comparable quarter and each fiscal year is shown in the table below.

	Three month periods ended			
	September 30,			
	2022	2021	Change	Change
	\$	\$	\$	%
Net income (loss)	(1.98)	(2.30)	0.32	-14%
Tax	0.86	(0.30)	1.16	-387%
Interest expense (net)	1.58	0.65	0.93	143%
Share-based compensation	0.92	2.12	(1.20)	-57%
Depreciation of property and equipment	1.31	0.44	0.87	198%
Depreciation of right-of-use assets	1.00	0.73	0.27	37%
Amortization of intangibles	8.58	7.66	0.92	12%
Business integration costs	0.05	0.84	(0.79)	-94%
Change in fair value of consideration payable	(1.58)	0.25	(1.83)	-732%
Adjusted EBITDA	10.74	10.09	0.65	6%
Percentage of revenue	17%	20%	-3%	-14%

For the first quarter of fiscal 2023, Adjusted EBITDA at \$10.74 million, was up from \$10.09 million of the same quarter last year, primarily resulting from the addition of NetFortris, the underlying growth in our Services business, and the cost restructuring as part of the integration of NetFortris.

QUARTERLY RESULTS OF OPERATIONS

Sangoma's quarterly revenue has now exceeded the same period in the prior year for each of the last 28 quarters. Selected financial information over the prior eight quarters is shown in the table below.

Sales and Net Income by Quarter

	Second	Third	Fourth	First	Second	Third	Fourth	First
	quarter	quarter	quarter	quarter	quarter	quarter	quarter	quarter
	2020-2021	2020-2021	2020-2021	2021-2022	2021-2022	2021-2022	2021-2022	2022-2023
Sales	\$ 27.09	\$ 27.95	\$ 50.12	\$ 51.50	\$ 53.19	\$ 53.37	\$ 66.29	\$ 64.05
Gross Profit	\$ 17.93	\$ 18.32	\$ 35.88	\$ 36.87	\$ 38.35	\$ 37.20	\$ 44.47	\$ 43.34
Expenses	\$ 15.13	\$ 15.76	\$ 37.78	\$ 37.73	\$ 39.19	\$ 40.14	\$ 45.71	\$ 44.41
Adjusted operating income (loss)	\$ 2.80	\$ 2.56	\$ (1.90)	\$ (0.86)	\$ (0.84)	\$ (2.94)	\$ (1.24)	\$ (1.07)
Net income (loss)	\$ 1.77	\$ (1.78)	\$ (1.29)	\$ (2.30)	\$ (2.48)	\$ (6.76)	\$ (99.25)	\$ (1.98)
Net earnings (loss) per share								
Non-diluted basis	\$ 0.112	\$ (0.112)	\$ (0.041)	\$ (0.073)	\$ (0.078)	\$ (0.212)	\$ (2.987)	\$ (0.060)
Fully diluted basis	\$ 0.110	\$ (0.112)	\$ (0.041)	\$ (0.073)	\$ (0.078)	\$ (0.212)	\$ (2.987)	\$ (0.060)
Adjusted EBITDA	\$ 5.14	\$ 5.35	\$ 9.78	\$ 10.09	\$ 10.43	\$ 10.47	\$ 11.13	\$ 10.74

Revenues over the comparative periods have been positively impacted by the acquisitions of NetFortris in March 2022, the acquisition of Star2Star in March 2021, the organic growth within the existing Services business, as well as an uptick in some quarters for the Product business. Revenue streams continue to exhibit some modest seasonal trends with the first quarter often having been down slightly from the immediately preceding fourth quarter.

In line with revenue, cost of goods sold, gross profit, operating expenses, and Adjusted EBITDA have all increased over the comparable periods. In addition, cost of goods has been impacted by the related global supply chain pressures, for both electronic components and for shipping. In some cases, Sangoma has needed to order further ahead, pay more for electronic components, and to ship product by air versus by sea at higher cost.

LIQUIDITY AND CAPITAL RESOURCES

As of September 30, 2022, Sangoma had current assets of \$60.06 million and current liabilities of \$73.09 million, compared with \$61.01 million and \$78.41 million at June 30, 2022, respectively. The decrease in assets is primarily a result of the repayment of debt and certain tax payments which were made in the first quarter, while the decrease in liabilities is primarily a result of the repayment of debt.

The Company closed the first quarter with \$8.29 million of cash compared to \$12.70 million at June 30, 2022. The Company used a portion of its cash to fund the NetFortris acquisition, to continue paying down the debt associated with its most recent acquisition, and in the share buyback program under our normal course issuer bid (the “NCIB”).

Trade receivables of \$17.22 million on September 30, 2022, were higher than the \$16.05 million on June 30, 2022, primarily as a result of the addition of NetFortris and from the growth in our business.

Inventories were \$19.07 million on September 30, 2022, \$1.64 million higher than the \$17.43 million at June 30, 2022, primarily reflecting the addition of NetFortris, as well as the inventory build undertaken to offset potential supply chain delays described earlier. As indicated in our fiscal 2022 results, Sangoma expects this elevated inventory level to continue for the next few quarters until the supply chain stabilizes.

Sangoma generated \$3.20 million of Adjusted Cash Flow from operations during the first fiscal quarter of 2023 ended September 30, 2022, compared to \$5.04 million in the same quarter last year. The reconciliation of net cash flows from operating activities to Adjusted Cash Flow for the first quarters of fiscal 2022 and 2023 are shown in the table below.

	Three month periods ended			
	September 30,			
	2022	2021	Change	Change
	\$	\$	\$	%
Net cash flows from operating activities	3.64	4.01	(0.37)	-9%
Less capitalization of development costs	(1.77)	(0.34)	(1.43)	421%
Interest expense	1.28	0.53	0.75	142%
Business acquisition costs paid	-	-	-	0%
Business integration costs	0.05	0.84	(0.79)	-94%
Exchange listing expense	-	-	-	0%
Adjusted cash flow from operations	3.20	5.04	(1.84)	-37%

There are no existing or anticipated defaults or arrears on lease payments or interest payments and Sangoma is in full compliance with all debt covenants. 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.

Credit Facility

On October 18, 2019, the Company entered into a new credit agreement (the “Original Credit Agreement”) in favour of its subsidiaries, Sangoma Technologies Inc. and Sangoma US Inc. (the “Borrowers”) with *inter alia* The Toronto-Dominion Bank and The Bank of Montreal, as lenders (the “Lenders”). Under the terms of the Original Credit Agreement, the Lenders provided the Borrowers with a term loan facility to refinance the Company’s existing credit facilities and to fund part of the purchase of VI Acquisition.

On March 31, 2021, the Company entered into an amended and restated credit agreement (the “Amended and Restated Credit Agreement”) which amended and restated the Original Credit Agreement to allow the Company to fund part of the StarBlue Acquisition.

On March 28, 2022, the Company entered into the Second Amended and Restated Credit Agreement (the “Second Amended and Restated Credit Agreement”) which amended and restated the Amended and Restated Credit Agreement to allow the Company to fund part of the NetFortris Acquisition. The Second Amended and Restated Credit Agreement is comprised of: (i) a \$6,000,000 revolving credit facility, (ii) a \$21,750,000 term credit facility, which was used to partially fund the VI Acquisition (iii) a \$45,937,500 term credit facility, which was used to partially fund the StarBlue Acquisition, (iv) a \$45,000,000 term credit facility, which was used to partially fund the NetFortris Acquisition (the “Term 3 Facility”), and (v) a \$1,500,000 swingline credit facility.

On June 28, 2022, the Company entered into the first amendment to the Second Amended and Restated Credit Agreement to reflect certain administrative amendments and to amend the amount of the Term 3 Facility quarterly principal installments.

Under its Second Amended and Restated Credit Agreement with its lenders, the Company must satisfy certain financial covenants, principally in respect of total funded debt to earnings before interest, taxes and amortization, and debt service coverage ratio. As at September 30, 2022, the Company was in compliance with all covenants related to its Credit Agreement.

CONTRACTUAL OBLIGATIONS

The following table shows the movement in contractual liabilities from July 1, 2022 to September 30, 2022:

	\$
Opening balance, July 1, 2021	15,754
Revenue deferred during the period	40,272
Deferred revenue recognized as revenue during the period	(42,625)
Additions through business combination (Note 20)	1,666
Ending balance, June 30, 2022	15,067
Revenue deferred during the period	10,163
Deferred revenue recognized as revenue during the period	(10,579)
Ending balance, September 30, 2022	14,651
Contract liabilities - Current	10,933
Contract liabilities - Non-current	3,718
	14,651

Commitments

The table below outlines our contractual commitments as of September 30, 2022:

	For the twelve-month periods ended					Total
	September 30, 2023	September 30, 2024	September 30, 2025	September 30, 2026	Thereafter	
	\$	\$	\$	\$	\$	\$
Accounts payable and accrued liabilities	27,625	-	-	-	-	27,625
Sales tax payable	5,636	-	-	-	-	5,636
Consideration payable	9,995	695	695	290	-	11,675
Operating facility and loans	17,700	17,700	22,050	20,600	22,150	100,200
Lease obligations on right of use assets	3,933	3,113	2,958	2,185	7,154	19,343
Other non-current liabilities	-	-	-	-	1,024	1,024
	64,889	21,508	25,703	23,075	30,328	165,503

USE OF PROCEEDS FROM EQUITY FINANCINGS

As of the date of this MD&A, there has not been, and the Company does not anticipate, any changes to its previously made disclosure about the Company's intended use of proceeds from the Offerings.

Offering	Previously Disclosed Proposed Use of Proceeds	Actual Use of Proceeds and Explanation of Variances
Prospectus Supplement dated July 24, 2020 to the Short Form Base Shelf Prospectus Dated June 29, 2020	The Company intends to use net proceeds of the Offering for future acquisitions, with any unused net proceeds to be used for working capital and other general corporate purposes, including to reduce debt. The Company will have discretion in the actual application of Net Proceeds.	Substantially all of the proceeds were used in the Company's acquisition of StarBlue Inc. and its wholly-owned operating subsidiary Star2Star Communications, LLC completed on March 31, 2021.

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 in the notes to the consolidated financial statements, the Company is not party to any material transactions with related parties.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of our consolidated financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the amounts reported in the

consolidated financial statements and accompanying notes. We review these estimates on an ongoing basis based on management's best knowledge of current events and actions that we may undertake in the future. Actual results could differ from these estimates. All significant estimates and critical judgments, estimates, and assumptions are described in Note 3 of the Company's Financial Statements.

FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

The fair values of the cash and cash equivalents, trade and other receivables, derivative assets, contract assets, other current assets, accounts payable and accrued liabilities, consideration payable and derivative liabilities approximate their carrying values due to the relatively short-term nature of these financial instruments or as these financial instruments are fair valued at each reporting period. The fair values of operating facility and loans approximate their carrying values due to variable interest loans or fixed rate loan, which represent market rate. Further details relating to our financial instruments, the risks associated with the financial instruments and how we manage those risks, are described in Note 4 of the Company's Financial Statements.

SIGNIFICANT EVENTS

Normal Course Issuer Bid

In the fourth quarter of fiscal 2022, the Company announced its intention to make an NCIB with respect to its Shares. Pursuant to the NCIB, Sangoma may, during the 12-month period commencing June 23, 2022 and ending no later than June 22, 2023, purchase up to 1,071,981 Shares, representing 5% of the total number of 21,439,632 Shares outstanding, through the facilities of the TSX, the Nasdaq Global Select Market or alternative Canadian trading systems. Sangoma also entered into an automatic share purchase plan with a designated broker to allow for the purchase of Shares under the NCIB at times when the Company would ordinarily not be permitted to purchase Shares due to self-imposed blackout periods, insider trading rules or otherwise.

Under the term of the NCIB, during the three-month period ended September 30, 2022, the Company purchased a total of 40,922 common shares at an average price of \$6.52 per share, for total consideration of \$267,000. During the quarter 10,700 of those common shares were settled and cancelled along with 5,500 common shares that were purchased in the fourth fiscal quarter of 2022. The remaining 30,222 common shares were settled and cancelled on October 5, 2022. In addition, from October 1, 2022 to October 31, 2022, the Company's agent purchased 13,600 common shares at an average price of \$5.11 per share for total consideration of \$70,000, which were settled and cancelled on November 2, 2022. As of the date hereof, the Company's agent purchased an additional 13,800 common shares. These common shares have not yet been settled and cancelled.

OUTSTANDING SHARE INFORMATION

We are currently authorized to issue an unlimited number of common shares. As of the date hereof, 22,103,407 common shares and 1,150,929 stock options are issued and outstanding.

On November 8, 2022, a total of 981,314 shares were issued to the StarBlue sellers in accordance

with the share purchase agreement. Following this issuance, 10,000,000 shares remain to be issued over the next three years.

GUIDANCE

On September 26, 2022, the Company provided guidance for fiscal 2023. The Company is maintaining its guidance of revenue between \$275 - \$285 million and Adjusted EBITDA of \$48 - \$52 million.

The above outlook constitutes forward-looking information and is based on the Company's assessment of many material assumptions, including:

- The Company's ability to manage current supply chain constraints, including our ability to secure electronic components and parts, manufacturers being able to deliver ongoing quantities of finished products on schedule, no further material increases in cost for electronic components, and no significant delay or material increases in cost for shipping
- The revenue trends the Company experienced in fiscal year 2022 and the trends we expect going forward in fiscal 2023 and not negatively impacted by growing economic headwinds globally
- The continuing recovery of the global economy from the impact of COVID-19, including decreased government restrictions and increased customer demand, all of which would not be materially negatively affected by more recent macro factors such as inflation, interest rates, or recessions
- The successful integration of NetFortris, the achievement of post-closing synergies, and the ability to cross-sell NetFortris and Sangoma's products and services to the other's customer base
- The NetFortris business continuing to operate and generate results in a manner consistent with its business preceding its acquisition by the Company and as anticipated by us
- There being continuing growth in the global UCaaS and cloud communications markets more generally
- There being continuing demand and subscriber growth for our Services and continuing demand as anticipated for our Products
- Changes in global exchange rates do not disrupt demand for the Company's Products and Services
- The ability of the Company's customers to continue their business operations without any material impact on their requirements for the Company's Products and Services
- The Company's forecasted revenue from its internal sales teams and via channel partners will meet expectations, which is based on certain management assumptions, including continuing demand for the Company's products and services, no material delays in receipt of products from its contract manufacturers, no further material increase to the Company's manufacturing, labour or shipping costs
- There are no additional revenue reclassifications
- The Company is able to remediate the material weaknesses identified in its internal control over financial reporting
- That the Company is able to attract and keep the employees needed to maintain the current momentum
- The continued ability for the Company's operational employees to work at the Company's internal and outsourced facilities
- Other employees being able to work from home as required without any material impact on productivity

Controls and Procedures

Management of the Company, under the supervision of the Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting (“ICFR”) (as defined under applicable Canadian securities laws and by the United States Securities and Exchange Commission (“SEC”) in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) for the company to ensure that (i) material information relating to the Company is made known to management by others, particularly during the period in which the annual and interim filings are being prepared; and (ii) information required to be disclosed by the Company in its annual and interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time period specified in securities legislation.

Management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer and oversight of the Board of Directors evaluated the effectiveness of our ICFR as of September 30, 2022 against the criteria set forth in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon the evaluation, management has concluded that, because of the material weakness described in our management discussion & analysis for the year ended June 30, 2022 (the “Fiscal 2022 Annual MD&A”), as of such date, the Company’s disclosure controls and procedures were not effective.

Remediation of Material Weakness in ICFR

As previously described in our Fiscal 2022 Annual MD&A, management, has initiated remediation efforts to address the material weakness identified in its Fiscal 2022 Annual MD&A, as well as to foster improvement in the Company’s internal control and enhance the overall financial control environment.

While we believe that the efforts taken to date and those planned for remediation will improve the effectiveness of our internal control over financial reporting, the material weakness will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

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 fourth party software to interact with a particular application. A typical API is the user interface for Windows that allows 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 compresses 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.

DID

Direct Inward Dialing (“DID”) is a virtual phone number that uses the existing phone lines to route incoming calls. Callers can connect to a phone extension directly without an operator. This offers convenience for both employees and callers alike. DID offers a cost saving on its own and is less expensive when purchased with a SIP trunk.

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.

IoT

Internet of Things (“IoT”) refers to a system of interrelated, internet-connected objects that are able to collect and transfer data over a wireless network without human intervention.

IP

The Internet Protocol (“IP”) is the primary protocol in the internet layer of the Internet protocol suite, and delivers data packets from the source host to the destination host solely based on the IP address.

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.

PBX

Private branch exchange. A PBX is a premised basis device to deliver calls from the PSTN or VOIP network to phones in a single or multiple locations.

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.

SBC

A Session Border Controller ("SBC") is a device deployed in Voice over Internet Protocol ("VoIP") networks to exert control over the signaling and usually also the media streams involved in setting up, conducting, and tearing down telephone calls or other interactive media communications. SBCs are deployed as demarcation points between enterprises and service providers and between service provider networks.

SD-WAN

A Software-defined Wide Area Network ("SD-WAN") uses software to control and manage connectivity across a customers wide area network. While traditional wide area networks rely on physical routers to connect remote users, this centralized software solution can help customers monitor their performance of the network and manage traffic.

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. The term SIP Trunk is used to describe the provision of a SIP line to an end customer.

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.

TDM

Time Division Multiplexing ("TDM") is used in circuit switched networks to increase the number of calls carried simultaneously on any one circuit and formed the basis for the digital telephony networks.

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 is used universally for all networking including local area networks and private networks, not just the Internet. VoIP is not necessarily voice over the Internet, but voice over general data networks.