

Gopher Protocol



Connecting Intelligence

1st April 2019

Gopher Protocol, a software developer focused on Wireless Mesh Networking, the Internet of Things and Artificial Intelligence, is well positioned for rapid revenue growth. The company boasts proprietary technology in its two chief areas of planned operation, while the core business enjoys positive free cash flow. A strong, flexible management team and attractive EV/sales valuation augur well for Gopher Protocol as an investment. Sales in 2018 were \$51.6m.

Gopher Protocol's sales revenue growth should be fuelled by uptake for its Wireless Mesh Network (WMN) IP and associated products. WMN is a business in its own right. However, the company is capable of pushing the technology into its downstream AI and IoT activities. The current core business, Prepaid, continues to grow as well as making a positive cash contribution. The \$51.6m 2018 sales figure was announced 28th March.

The company's chief addressable markets appear well poised for rapid expansion. Gopher Protocol is a play on both network infrastructure, where industry estimates support the case for market growth in the region of 6% to 8%, and the much faster growing data industry where growth could be 20% to 40% - perhaps even more.

Within both the core prepaid business and the WMN opportunity, Gopher Protocol boasts proprietary technology, which we believe enhances its investment case. Gopher Protocol currently has one patented technology that applies broadly to both WMN and Asset Tracking, with four more pending. Both WMN and Asset Tracking benefit from the imminent GopherInsight™ platform launch planned for 2019, which includes microchip designs, the new gNET proprietary mesh network protocol, the proprietary gEYE security protocol, and Avant! Artificial Intelligence (AI) management layer. Prepaid is supported by GopherInsight and Mobiquity digital tracking and marketing.

The management team appears compact and strong. Key positives include a wealth of experience in technology and strength in M&A. The rapid pace of change in technology creates a risk for companies which only look to expand organically. With its combination of technological know-how and a cash generative core business, Gopher Protocol is well positioned to exploit M&A opportunities which may arise in the sector.

Despite the establishment of a number of proprietary technologies and the experience of its leadership, Gopher Protocol trades at a trailing market cap:sales ratio of around 2.0x based on its recently released 2018 numbers.

Key financials

	2016	2017	2018
All figures in \$m	actual	actual	actual
Revenue	0.0	9.2	51.6
Gross profit	0.2	0.5	1.9
Gross margin	n/a	5.9%	3.7%
Operating loss	-1.4	-7.3	-45.8
Net loss per share (US cents)	-0.08	-0.22	-0.33
EV/sales (x)		11.2	2.0

Source: Company data

Company Data

Description

Gopher Protocol is a software developer focused on Wireless Mesh Networking, the Internet of Things and Artificial Intelligence.

Ticker	GOPH:OTC US
Price (last close)	\$0.45
Market cap	\$93.1m
Average volume 30d	512,000

Contents

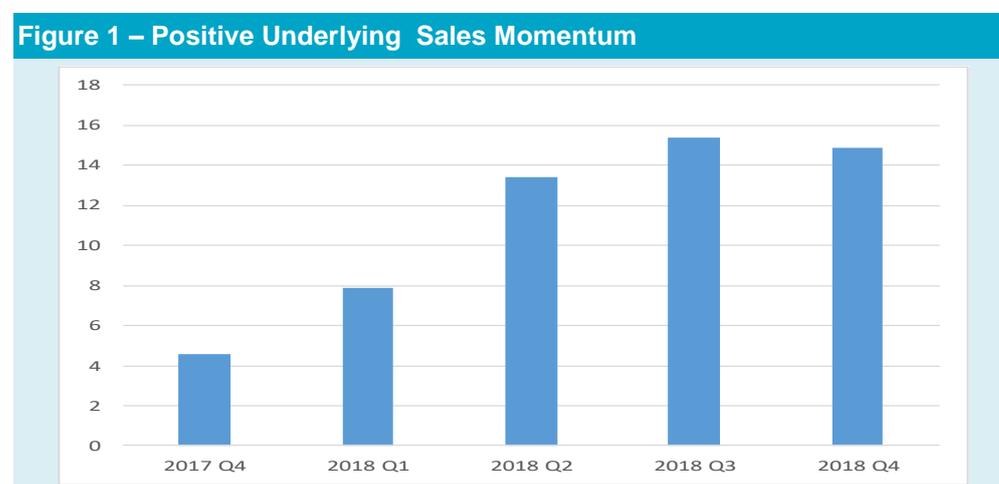
Investment case	3
Connecting Intelligence.....	4
Wireless Mesh Networking	4
Prepaid	6
Addressable Market Growth	6
Proprietary Technology	7
Management and Strategy	10
Valuation and Financials.....	11
Disclaimer.....	12

Investment Case

In a nutshell, the investment case for Gopher Protocol is very rapid organic sales growth. Moreover, this rapid growth should be supported by a combination of very high-quality IP and substantial headroom in its addressable markets. In addition, there is a demonstrable senior management competence in M&A.

Gopher Protocol's sales revenue growth should be fuelled by uptake for its wireless mesh network (WMN) IP and associated products. WMN is a business in its own right. However, the company is capable of pushing the technology into its downstream AI and IoT activities. The current core business, prepaid, continues to grow and enjoys positive free cash flow.

The company announced 2018 results on 28th March 2019. Full year sales were \$51.6m in 2018. We note that the company's reported loss in 2018 incorporated a substantial number of non-cash items.



Source: Company Accounts Data

Within both the core prepaid business and the WMN opportunity, Gopher Protocol boasts proprietary technology, which further supports the company's investment case. Gopher Protocol currently has 1 patented technology that applies broadly to both WMN and Asset Tracking, with 4 more pending. Both WMN and Asset Tracking benefit from the imminent GopherInsight™ platform launch planned for 2019, which includes microchip designs, the new gNET proprietary mesh network protocol, the proprietary gEYE security protocol, and Avant! Artificial Intelligence (AI) management layer. Prepaid is supported by GopherInsight and Mobiquity digital tracking and marketing.

The management team appears compact and strong. Key positives include a wealth of experience in technology and strength in M&A. The rapid pace of change in technology creates a risk for companies which only look to expand organically. With its combination of technological know-how and a cash generative core business, Gopher Protocol is well positioned to exploit M&A opportunities which may arise in the sector.

Any valuation based on earnings appears inappropriate given the early stage of Gopher Protocol's WMN activities. However, it is possible to infer an EV/sales ratio based on the company's 2018 sales data which were published in its 10K on 28th March 2019. The valuation, at around 2.0x sales, appears reasonable for a company which, while it transitions to a tech company valuation, is primarily comprised today of financial services revenues.

Overview - Connecting Intelligence

This report covers the investment case for Gopher Protocol. The positive argument focuses on the quality of the company's core Wireless Mesh Networking IP and its ability to move this downstream into Artificial Intelligence and Asset Tracking. Moreover, the company is well positioned financially due to its core Prepaid business which also acts as a marketing conduit for B2C activities. Gopher Protocol expects to be a combination of a B2B and B2C company.

Gopher Protocol's leadership team looks strong and well matched to the areas of operation. The company's management comprises significant experience and proven track records in the key areas of technology development, industry strategy and financial management. Once fully financed, the company appears to enjoy a clear route to growth.

Founded in 2009 with a legacy in financial trading, Gopher Protocol is now a technology company which focuses on chip design and software and looks to apply these through its intellectual property portfolio to the following three business areas.

1 - Wireless Mesh Networking

2 - Asset Tracking

3 - Prepaid

We discuss each of these in turn before attempting to establish the growth prospects of the overall categories in which they operate - i.e. their total addressable markets - and the proprietary technologies and intellectual properties associated with each one.

In addition, we cover management and group strategy as well as looking at the company's financials - both in terms of relative valuation and forecasts. Overall, we are keen to establish the overriding investment case for a company which excels at Wireless Mesh Networking and thus enjoys the potential to secure B2B and B2C business in both in both the Internet of Things (IoT) and Artificial Intelligence.

Wireless Mesh Networking

Put simply, commercial Wireless Mesh Networking enables operations within a network to communicate with each other by establishing a compact and performant broadcasting infrastructure. The technology effectively compresses traditional methods of wireless communication - e.g. broadcasting towers - into small hardware units which have a similar function.

As WMN effectively raises broadcasting or communication capacity it in essence enhances simple network connectivity as well as enabling highly sophisticated applications - notably AI and IoT - to occur. The frequently encountered problems associated with current 3G and 4G networks can be solved via the application of WMN as it raises network capacity.

Gopher Protocol expects WMN to be a business in its own right. At the B2B level the company is already in discussions with a number of strategic technology companies with a view to putting its mesh communications technology into their platforms. This cohort represents a number of international household names in the technology and communications space.

B2C applications for WMN tend also to confirm proof of concept. In particular, WMN's core technology enables its users no longer to rely on "line of sight" when performing operations. B2C examples where WMN would massively improve connectivity and enhance communications include pet tracking, improved networking and skier tracking within ski resorts and sports stadiums – all areas where individuals repeatedly encounter network frustration.

In the case of pet tracking, owners are capable by use of a simple tracking device – either attached or adhered to the animal's collar – to locate from a hand-held base station their domestic pets. Moreover, in contrast to a centralised base system the individual tracking nodes are capable of forming arcs and communicating with each other. This is what effectively creates a wireless mesh.

Ski resorts notoriously suffer from inadequate mobile telephone network coverage, which has negative implications for skier enjoyment – e.g. harder to arrange rendezvous – and safety. It is important at times to be able to track skiers electronically. For example, avalanche accidents are frequently worsened by the inability to locate the skiers. Formation of a wireless mesh of interconnected skiers and resort workers provides an important solution to these problems.

Finally, we consider sports stadiums where network capacity at heavily attended events rarely matches the demand to make intra-stadium calls, texts and uploads, massively to the frustration of spectators. WMN aims to solve that problem by creating a meshed – i.e. connected - network of end-users.

Asset Tracking and the Internet of Things (IoT)

Asset tracking is a downstream activity which acts as a subset of Gopher Protocol's WMN activities. Moreover, it supports the case for active rather than passive use of data-based technology. Put simply, asset tracking within a WMN based system allows owners of an asset proactively to monitor an asset remotely.

For example, exported goods which are being shipped intercontinentally can at present only be tracked at the points of loading and unloading. In contrast, it is possible to monitor and deliver information to items which use WMN on both a remote and real time basis.

Furthermore, "Smart homes" should benefit massively from IoT technology as assets become able to communicate with each other on a real time basis. Increasingly, heating systems, cooling systems, major appliances and even electronic car charging enjoy cost and efficiency benefits if they are able to communicate with each other interactively – i.e. the things have an internet in the same way that people do. IoT becomes social media for domestic items!

Artificial intelligence (AI)

AI is poised to be a major beneficiary of expanded communications capacity and interactive communication. Just as quantum computing with its massively enlarged potential processing power is seen as a solution to constraints on the ability to make sizable calculations, so too is network capacity.

AI is a natural downstream activity for Gopher Protocol given its potential proprietary strength in WMN.

Prepaid

Prepaid is the most mainstream of Gopher Protocol's technology businesses today. It gives the company substantial reach in terms of its customer base – with clear barriers to entry – as well as the benefit of being cash generative by nature. It would be wrong in our view for investors to look at prepaid purely as a cash cow. Rather, it gives Gopher Protocol access to a sizable end-customer base. Moreover, its prepaid business is arguably under penetrated.

Currently, through its terminals the prepaid business serves around 9,400 convenience stores in the USA, a country which boasts of the order of 154,000 convenience stores. The NACS (National Association of Convenience Stores) estimates that footfall is about 1,000 individuals per convenience store. As a result, Gopher Protocol's system is capable as things stand of communicating with 9.4m potential end-customers for services other than prepaid.

Prepaid itself is a methodology for consumers to purchase telephony. In addition, they use funds which have been downloaded on devices to make purchases using electronic payments. Gopher Protocol's geographic prepaid strength is in the South Eastern states of the US. Implied market penetration is currently only around 6% of total US convenience stores.

Gopher Protocol's Prepaid business is comprised of two operations acquired in 2017 and 2018. The management team for the Prepaid business appears strong, comprised of industry-expert individuals who started the original software company that comprises Gopher Protocol's solution 20 years ago and have grown a substantial and profitable business.

Addressable Market Growth

Having established proof of concept for Gopher Protocol core product, it is important for investors to grasp the potential very growthy nature of its addressable markets. Network infrastructure is poised for high single digit growth. Data, as appears widely reported but underappreciated by some investors, is probably set for considerably faster expansion.

In August 2017, Grand View Research published a report which estimated that the global WMN market would grow from \$5.3bn in 2016 to be \$11.1bn in 2025 – i.e. a 9% compound annual growth rate.

Supporting evidence that demand for data will grow at a much faster pace includes the recently published view from International Data Corp that global spending on artificial intelligence is expected to hit \$35.8 billion this year, up 44% over last year, with retail and banking leading the way.

They argue that the AI market shows no sign of slowing down, with AI spending projected to more than double to \$79.2 billion by 2022, a compound annual growth rate of 38%, IDC said. The company increased its AI spending projection from September, the last time it looked at the market, when it anticipated AI outlays to hit \$77.6 billion by 2022. The U.S. will be responsible for nearly two-thirds of all AI spending this year.

UK investment research firm *Equity Development* published a supporting research report for *Evident Proof* a token focused on data collection and proof certificates on 29th November 2018. That report highlighted that according to *MarketsAndMarkets* projections, database security (a subset of the overall data market) will expand from a US\$3bn market in 2017 to US\$7bn in 2022, a 17% compound annual growth rate.

Estimates of growth in overall demand for data of between 20% and 40% annually in the coming decade are not uncommon. As an operator in AI, WMN and IoT, Gopher Protocol look well positioned to exploit a massive growth in its total addressable market.

Proprietary Technology

Proprietary technology provides the “proof is in the eating” for Gopher Protocol’s ability to hold and gain market share and thus fully exploit the growth opportunities which are implied by the widespread forecasts of exponential growth in its chief addressable markets. Investors will probably concur that the company needs to demonstrate both its “ownership” and edge.

Gopher Protocol itself does not rest its investment case on patent ownership. Currently, it only boasts ownership of one patent, with 3 pending. The company historically has had up to 26 patents and is in the process of refining and consolidating its IP.

The company’s current patent, which relates to antenna design and use, is the Guardian Patch (US patent number 10,021,522). The patch itself, which is illustrated below, is planned to adhere to consumer products such as cars, laptops, mobile phones and pieces of luggage, or may be used in commercial applications for asset tracking. It is designed to contain a self-powered microchip tracking mechanism which emits a signal to whomever is in control of the tracking process.

The long-life battery powered device is planned to link with an app to provide global real-time information about the location of any of the objects to which a Guardian Patch is attached. The Guardian Patch is planned for release in 2020.

Figure 2 - Guardian Patch



4

Source: www.guardianpatch.com

In addition to patented and patent pending IP, Gopher Protocol’s solutions are planned to benefit overall from their own proprietary GopherInsight chip designs, gNET wireless mesh and gEYE security protocols, and its Avant! AI management layer.

Prepaid

Gopher Protocol's Prepaid growth plan is to expand its U.S. penetration for its software and hardware POS systems from the current 6% (9,400 stores out of 154,000), and to explore launching internationally, with Latin America and Europe as possible targets. The current network of 9,400 stores will be supported by GopherInsight technology to create wireless mesh networking to enhance the Prepaid capabilities for its vendors and customers.

Gopher Protocol has a strategic investment (Gopher Protocol owns approximately 18% of Mobiquity's stock) and tech partnership with Digital Marketing company Mobiquity (OTC:QB MOBQ). Joint deployment of Mobiquity digital tracking and marketing could enhance the Gopher Protocol's Prepaid reach and revenue. Images of other Gopher Protocol target markets are summarised in Figure 3.

Figure 3 – Other Gopher Protocol Potential Target Markets



Source: Company Investor Presentation

Management and Strategy

Management

Gopher Protocol is led by experienced technology manager Doug Davis. He assumed the role initially of interim CEO before having his appointment confirmed as full time in late 2018. Danny Rittman remains in place as Chief Technology Officer while also assuming the role of supervisory board chairman. Mansour Khatib complements his CMO role with a significant amount of financial responsibility.

Figure 4 - Gopher Protocol – Senior Leadership Team

Officer	Age	Appointed	Role
Robert Yaspan	72	2018	Chairman
Doug Davis	60	2018	Chief Executive Officer
Danny Rittman	56	1998	Chief Technology Officer
Mansour Khatib	55	2014	Chief Marketing Officer
Kevin Pickard	54	2018	Chief Financial Officer

Source: Company data

Gopher Protocol has a relatively small group headcount. It is predominantly an IP company. As a result, the leadership team is very much “hands-on.” In addition, there is significant senior management focus on establishing the correct financial structure for the group.

Strategy

Gopher Protocol’s operating strategy should be an extrapolation of the salient features of a product, addressable market and intellectual property review. Financially, the chief strategic focus refers both to the above comments about financial structure and to listing

In particular, the company’s listing strategy remains focused on uplisting within the US and on expanding outwards internationally. It is clear that Gopher Protocol would be interested in being listed on a senior exchange such as either NASDAQ or on an index of similar status.

Outside the US, the front-runner for some time has been Euronext, based in Paris. However, the company does not rule out one of the other European financial centres. Both Milan AIM and London AIM are attractive propositions.

Expansion plans represent a combination ongoing of organic growth in prepaid, a step-up in WMN technology and its applications for AI and IoT and mergers & acquisitions. With due regard for financing M&A and the availability of suitable targets, all three should be seen as smart options in our view.

Unlike some companies which look to develop new technologies and face major strains on cash flow, Gopher Protocol enjoys the benefit of Prepaid, which is also a source of potential custom.

Financials

Gopher Protocol published full year results in its 10K on 28th March 2019. In 2018 sales were \$51.6m compared with \$9.2m in 2017. While Q4 sales were lower than in Q3 there was a significant gain on the same three months a year earlier.

Income Statement, Balance Sheet and Free Cash Flow

With revenue of \$51.6m in 2018, reported losses were \$51.8m. But actual cash losses for this period were much lower. Operating cash outflow was \$4.6m in 2018, with a further \$0.5m outflow from investing activities. Financing activities contributed \$5.7mm which led to a \$0.6m increase in actual net cash position in 2018.

With this “clean-up” of the balance sheet, and the bulk of the R&D for the GopherInsight platform elements having been expensed, we believe Gopher Protocol is in a good position to improve its income statement and should be able to source funding for its operational and M&A requirements as needed.

The full year and end-year tables in this report refer to historic data only – i.e. they finish in 2018. The most important statistic in our opinion is sales revenue. The company clearly has revenue and customer reach.

We also note the lack of indebtedness. Management has reported that recent funding was used to “clean up” the balance sheet of debt in preparation for future equity raises in conjunction with European and US exchange listings. Any equity which the company, in common with other early stage situations, might raise should be available to be reinvested in growth rather than balance sheet reorganization.

Valuation

Gopher Protocol’s transitioning and early stage nature makes standard industry peer group relative valuations, particularly any based on standard multiples such as EV/EBITDA, less useful than normal.

Investors may wish to focus instead on the company being purchasable at an enterprise value of around \$103m (\$101m market cap + \$2m net debt) in relation to 2018 published annual sales of \$51.6m – i.e. an implied EV/sales ratio around 2.0x.

Figure 5 – Income Statement

	2016	2017	2018
All figures in US dollars	End-Dec	End-Dec	End-Dec
Sales revenue (including related party sales)	165,000	9,192,354	51,569,605
Cost of goods sold		8,651,804	49,676,764
Gross profit	165,000	540,550	1,892,841
Operating expenses			
General & administrative	1,401,338	3,574,296	17,346,725
Marketing expenses	126,838	220,229	502,539
Acquisition costs		4,050,819	10,966,791
			11,750,000
			7,132,286
Total operating expenses	1,528,176	7,845,344	47,698,341
Operating profit/loss	-1,363,176	-7,304,794	-45,805,500
Other income (expense)			
Amortization of debt discount	-39,726	-1,195,755	-3,740,794
Change in fair value of derivative liability	-177,062	374,230	-734,540
Interest expense and financing cost	-6,262	-2,160,971	-5,808,836
Total other income (expense)	-223,050	-2,982,496	-5,964,170
Income tax expense	0	0	0
Net loss	-1,586,226	-10,287,290	-51,769,670
Per share data	2016	2017	2018
Shares outstanding			
Basic and diluted	19,902,077	46,256,807	158,680,000
Net loss per share	-\$0.08	-\$0.22	-\$0.33

Source: Company Accounts Data

Figure 6 – Balance Sheet

	2016	2017	2018
All figures in US dollars	End-Dec	End-Dec	End-Dec
Current assets			
Cash	5,096	1,305,062	1,863,510
Accounts receivable		41,947	152,118
Inventory		262,749	-
Prepaid expenses	5,248		16,000
Marketable equity security			4,200,000
Total current assets	10,344	1,609,758	6,231,628
Non-current assets			
Property & equipment (net)	699	263,082	238,438
Intangible assets (net)		6,666,667	3,149,740
Other assets	7,500	1,979	14,000,000
Goodwill		950,619	925,877
Total non-current assets	8,199	7,882,347	18,314,055
Total assets	18,543	9,492,105	24,545,683
Current liabilities			
Accounts payable/accrued expenses	107,589	1,199,215	2,338,125
Unearned revenue			257,848
Due to Guardian LLC (related party)	660,132	1,350,262	702,483
Convertible notes		25,623	198,076
Note payable net of discount of \$744			2,699,256
Derivative liability		95,164	2,699,256
Total current liabilities	767,721	2,670,264	10,029,294
Non-current liabilities			
Convertible note payable	53,852		
Note payable		2,600,000	
Total non-current liabilities	53,852	2,600,000	
Total liabilities	821,573	5,270,264	10,029,294
Stockholders' equity			
Common and preferred stock	2,415	2,603	2,603
Treasury stock	-643,059	-643,059	-643,059
Additional paid-in capital	3,931,986	19,243,959	19,243,959
Accumulated deficit	-4,094,372	-14,381,662	-14,381,662
Total stockholders' equity	-803,030	4,221,841	4,221,841
Total liabilities and stockholders' equity	18,543	9,492,105	14,251,135

Source: Company Accounts Data

Figure 7 – Free Cash Flow

	2016	2017	2018
All figures in US dollars	End-Dec	End-Dec	End-Dec
Cash flows from operating activities			
Net loss	-1,586,226	-10,287,290	-51,769,670
Net cash provided by/used in operating activities			
Depreciation	1,347	26,169	106,602
Amortization		333,333	1,150,260
Amortization of debt discount	39,726	1,195,755	3,740,794
Change in fair value of derivative liability		-374,230	734,540
Financing cost		1,964,747	3,551,057
Amortization of paid filing fees	5,248		
Shares issued for services	688,947	766,500	13,641,225
Shares issued for JV buy-out			11,750,000
Warrants issued for services	177,062	4,782,297	7,881,028
Impairment of assets			7,132,286
Unrealized gain on market equity security			-6,475,317
Equity loss on equity investment			2,155,317
Cancellation of common stock per sett. ag.			-42,650
Common stock issued for price protection			883,450
Changes in operating assets and liabilities			
Other non-current assets	4,750	5,521	
Accounts receivable	25,974	-41,947	-110,171
Inventory		135,402	262,749
Pre-paid expenses	15,500	5,248	-16,000
Accounts payable & accrued expenses	605,456	766,944	1,162,602
Due to Guardian LLC		950,262	-647,779
Accrued interest on convertible notes payable	6,261		
Unearned revenue			257,848
Net cash from operating activities	-15,955	228,711	-4,651,829
Cash flows from investing activities			
Purchase of property, plant & equipment		-78,352	-16,958
Cash paid for acquisitions			-200,000
Cash paid for investment in Spare			-265,000
Other			1,979
Net cash used in investing activities		-78,352	-479,979
Cash flows from financing activities			
Issuance of convertible notes		440,000	6,356,000
Repayment of convertible notes		-290,393	-1,305,000
Issuance of common stock		1,000,000	1,500,000
Payment on acquisition note			-860,744
Net cash provided by financing activities		1,149,607	5,690,256
Net increase (decrease) in cash	-15,955	1,299,966	558,448

Source: Company Accounts Data

Disclaimer

DO NOT BASE ANY INVESTMENT DECISION UPON ANY INFORMATION OR OPINIONS FOUND IN THIS REPORT. We are not registered as a securities broker-dealer or an investment adviser either with the U.S. Securities and Exchange Commission (the “SEC”) or with any state securities regulatory authority. We are neither licensed nor qualified to provide investment advice. We have been paid £5,500 by Gopher Protocol Inc. to release this report. This report has been prepared for informational purposes only and is not intended to be used as a complete source of information on any particular company or industry. Information, opinions and analysis contained herein are based on sources believed to be reliable, but no representation, expressed or implied, has been made to us as to the accuracy, completeness or correctness of such information. You alone will need to evaluate the merits and risks associated with an investment with the company mentioned herein. Decisions based on information obtained from this report are your sole responsibility, and before making any decision on the basis of this information, you should consider (with the assistance of a financial and/or securities adviser) whether the investment is appropriate in light of your particular investment needs, objectives and financial circumstances. The opinions contained in this report reflect our current judgment and are subject to change without notice. We accept no liability for any losses arising from an investor's reliance on or use of this report. We have no obligation to update such report. Certain information included herein is forward-looking, including, but not limited to, statements concerning the growth and expansion of the Company and its industry. Such forward-looking information involves important risks and uncertainties that could affect actual results and cause them to differ materially from expectations expressed herein. We have no ownership in the Company mentioned herein.