

26th July 2010

**Analyst:** Philip Morrish  
**Email:** [philip.morrish@gecr.co.uk](mailto:philip.morrish@gecr.co.uk)  
**Tel:** 020 7562 3362

## Pinnacle Telecom Group – Buy

Pinnacle Telecom Group plc (formerly Glen Group plc) is an acquisitive AIM listed provider of integrated telecommunications solutions, specifically focused upon the huge UK SME market.

The company is currently over half way through its strategic repositioning, as outlined when CEO Alan Bonner reversed Pinnacle Telecom into Glen Group in June 2007. The group has now been stabilised, returned to growth, and reported a maiden operating profit\* for the six months ended 31 March 2010 (\*clean of exceptional items).

Whilst the market for hosted business-to-business telephony is still embryonic, Pinnacle's service offering has been steadily strengthened and the Company is leading the market with its hosted voice (VoIP) solution, which has been fully endorsed and used extensively by the BBC, most recently for this year's General

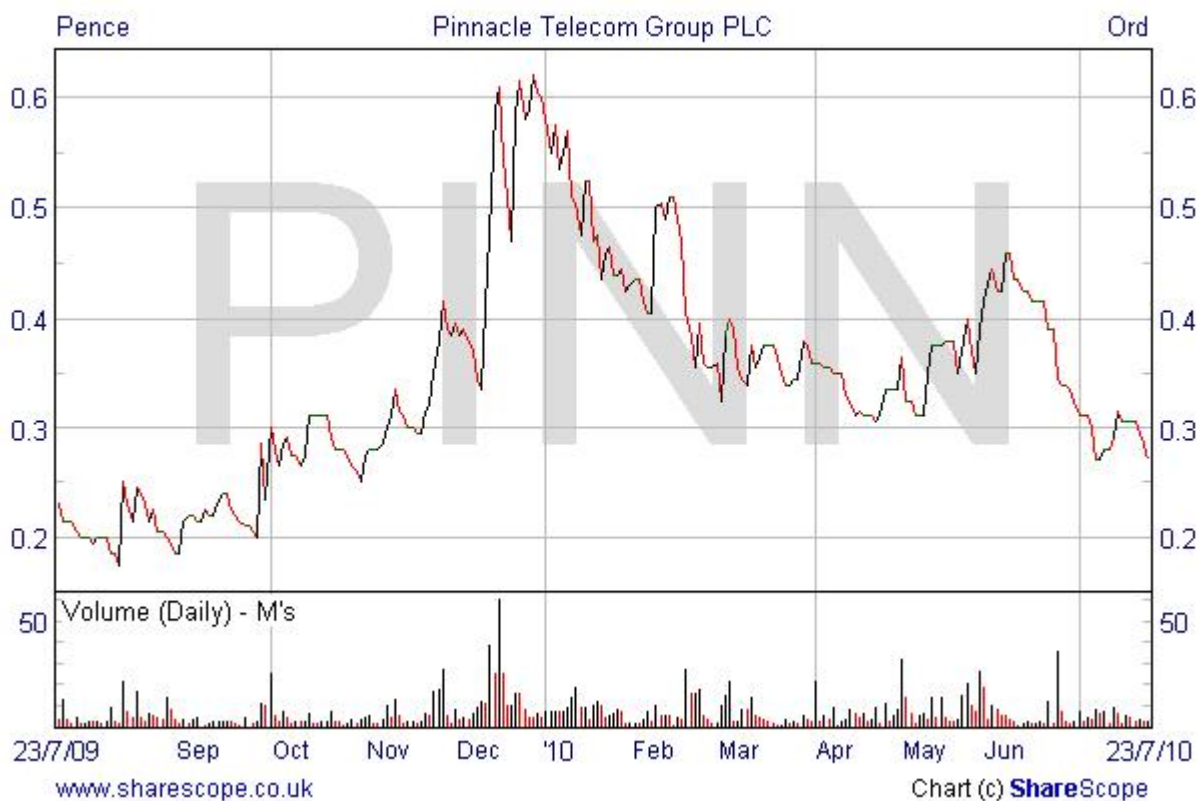
Election coverage. In addition, the company has provided similar virtual communications networks to some of the UK's biggest outdoor festivals, such as the Chelsea Flower Show, Donington Download, Glastonbury and T in the Park, to name only a few.

Results for the six months ended 31 March 2010 confirm that the group has turned the corner, all KPI's point toward a sustainable return to profitability and cash generation. The company now boasts 94% of its revenues are recurring.

We have valued Pinnacle Telecom using an Enterprise Value/Sales ('EV/Sales') methodology, which we believe conservatively values the growth potential as the group

Key	Data
EPIC	PINN
Share Price	0.27p
Spread	0.24p – 0.30p
NMS	300,000
Total no of shares	1,738.86 million
Market Cap	£4.69 million
12 Month Range	0.18p – 0.62p
Market	AIM
Website	<a href="http://www.pinnacletelecomgroup.co.uk">www.pinnacletelecomgroup.co.uk</a>
Sector	Fixed Line Telecommunications
Contact	Alan Bonner (Chief Executive) 0845 119 2100

moves into sustainable profitability and cash generation. Therefore, with the shares trading at 0.27p, the 2009 financial year Enterprise Value was £3.263 million, which is 1.02 times reported 2009 Sales of £3.192 million. We estimate that by the end of the 2011 financial year, the group will be profitable and increasingly cash generative, such that (in the highly unlikely event of no further acquisitions) Pinnacle will close the year with net cash of £0.581 million. Therefore, if the shares were to trade on a similar EV/Sales multiple, then, based on our conservative 2011 forecasts, the shares should be 0.53p and with the shares currently trading at 0.27p we recommend the shares as a **buy**.



## Forecasts Table

Year to 30 <sup>th</sup> September	Turnover (£000)	EBITDA (£000)	Pre-tax Profit (£000)	Earnings Per Share (p)	Price Earnings Ratio (x)	Dividend (p)	Yield (%)
2007A	1,015	(1,114)	(2,583)	(0.46)	NA	0.0	0.0
2008A	1,495	(839)	(1,067)	(0.09)	NA	0.0	0.0
2009A	3,192	(504)	(895)	(0.07)	NA	0.0	0.0
2010E	6,400	179	(266)	(0.02)	NA	0.0	0.0
2011E	8,500	305	(84)	(0.01)	NA	0.0	0.0

Source: Company and Growth Equities & Company Research

## Group History

The company was established in 2002 and floated on the AIM market on 1 December 2004 as Glen Group plc ('Glen') following a placing of 25 million shares at 3p each, raising £0.75 million and valuing the company at £1.5 million. The company started its quoted life as an IT and communications integration business, focussed on providing a wide range of communications and IT services to SMEs throughout the UK.

On 20 January 2006, Glen acquired Eclectic Holdings Limited ('Eclectic') for an initial consideration of £2.2 million, of which £1.95 million was cash and the balance in shares; there was an additional consideration of up to £787,500 dependent on adjusted results of Eclectic for their year ended 31st July 2006. The cash element of the acquisition was funded through a placing of 250 million shares that raised £2.5 million before expenses. Eclectic, based in Glasgow and London, was a project based reseller of IT services operating in the corporate market.

On 5 September 2006, the group acquired Edinburgh based Explore IT Limited ('Explore') for a cash consideration of £115,000.

Pinnacle Telecom plc was founded in March 1998 by Alan Bonner; the business grew rapidly posting turnover of £6m in 2004. In the same year, Pinnacle sold its customers to ADEPT Telecom plc for a seven-figure sum, and then set about rebuilding the business, with a focus on converged telephony and IT. On 6 June 2007, Glen acquired Pinnacle and its associated companies for a consideration of £700,000, which was satisfied by the issue to Alan Bonner of 122,727,273 ordinary shares at 0.55p per share and cash of £25,000. The Pinnacle management team led by Alan Bonner assumed management control of Glen and initiated a five-year transformation strategy.

Following the introduction of Pinnacle, substantial changes were made to the business and operations of Glen to increase the focus of its product set on the provision of IT services and solutions, including the provision of voice services over a broadband connection (VoIP). The intention was to start to convert its revenue streams to recurring, rather than project-based, income.

On 9 August 2007, Glen acquired the London based IG Software Limited, a corporate performance management IT services and consultancy business, through its subsidiary Eclectic, for a total consideration of £1.35 million, which was satisfied by the issue of 200 million shares at 0.55p per share and £250,000 in cash.

However, given the group's new focus was on converting its revenue streams away from project based revenues, and onto recurring revenues, on 19 December 2007, the company agreed to sell both Eclectic and IG Software, for a cash consideration of £2.72 million, to Maxima Holdings plc.

On 30 June 2008, Glen acquired the Paisley based Colloquium, a public telecommunications operator ("PTO") and Internet Service Provider ('ISP'), through its subsidiary Pinnacle for a total cash consideration of £100,000.

Glen Group plc changed its name to Pinnacle Telecom Group plc following the 5 March 2009 AGM to better reflect the future direction of the group, which is to be a provider of high quality, hosted telephony and value added IP/IT services to the UK SME market.

On 11 June 2009, the group, through Pinnacle, acquired the Northampton based Accent Telecom UK Limited ('Accent') for a total consideration of £661,450 that was satisfied by the issue of 508,807,826 shares at 0.13p per share.

On 13 January 2010, the group acquired Hinckley, Leicestershire based Solwise Telephony Limited ('Solwise') and its wholly owned subsidiary, Sipswitch Limited ('Sipswitch') for a maximum all share consideration of up to £0.5 million, at a minimum share price of 0.57p per share, which is in part based on an earn-out.

## Management

**William (Bill) Allan** is the Group's Non-Executive **Chairman**. Prior to joining Pinnacle he was Chief Executive of THUS Group plc from February 1999 until December 2008. In that time THUS grew its annual turnover to £576m. He has more than 25 years' experience in the telecoms industry. In previous years, he has also been Chief Executive of Cable & Wireless Regional Businesses, and a director on the boards of Telecommunications of Jamaica, Entel Panama, the Barbados Telephone Company, and the Barbados External Telecommunications Company. Between 1995 and 1997, he was Regional Director for Cable & Wireless North East Asia Region, President and Representative Director of Cable & Wireless Japan, and Chairman of Cable & Wireless Communication Services Limited (Japan). He was also a Director on the boards of International Digital Communications of Japan), Sakhalin Electrosvyaz, Sakhalin Telecom, Sakhalin Telecom Mobile and Nakhodka Telecom.

**Alan Bonner** is the group's **Chief Executive Officer**. He founded Pinnacle Telecom PLC in 1998. The business, including Pinnacle Mobile Limited and Sports Club Telecom Limited, was brought into Glen Group plc (later renamed Pinnacle Telecom Group plc) in June 2007. Pinnacle, based in Scotland, grew very rapidly as a provider of solutions based telecoms services to the SME market. The company has received numerous awards for its growth profile, and the entrepreneurial nature of the way it helped businesses by taking a solutions based approach to their telecoms requirements. He assumed management control of Glen and initiated a five-year transformation strategy in 2007.

**John Anderson** is a **Non-Executive Director**. A Chartered Accountant and a former partner at Grant Thornton, he has worked with many of Scotland's most exciting growth companies. He is the CEO of The Entrepreneurial Exchange, Scotland's leading members' organisation for ambitious, growth-orientated entrepreneurs. Formed in 1994, it has 450 members, representing over £22 billion of turnover and 290,000 employees. Mr. Anderson is also an Honorary Senior Lecturer at the Hunter Centre for Entrepreneurship at the University of Strathclyde; a founding GlobalScot member; a Saltire Foundation Fellowship advisory board member and sits on the boards of PSYBT and Stirling University Innovation Park.

## Significant Shareholders

There are 1,738,857,630 ordinary shares of 0.1p each in issue and those owning more than 3%, as at 17 February 2010, are:

Name	Number of Shares	% of Shares
D. Giddens	178,273,709	10.25
P. Goodland	178,273,709	10.25
A.J. Bonner	174,791,257	10.05
S. Dronfield	84,136,855	4.84
S. Patel <sup>1</sup>	75,356,571	4.33
J. Alexander <sup>2</sup>	75,356,571	4.33

Source: Company

Notes:

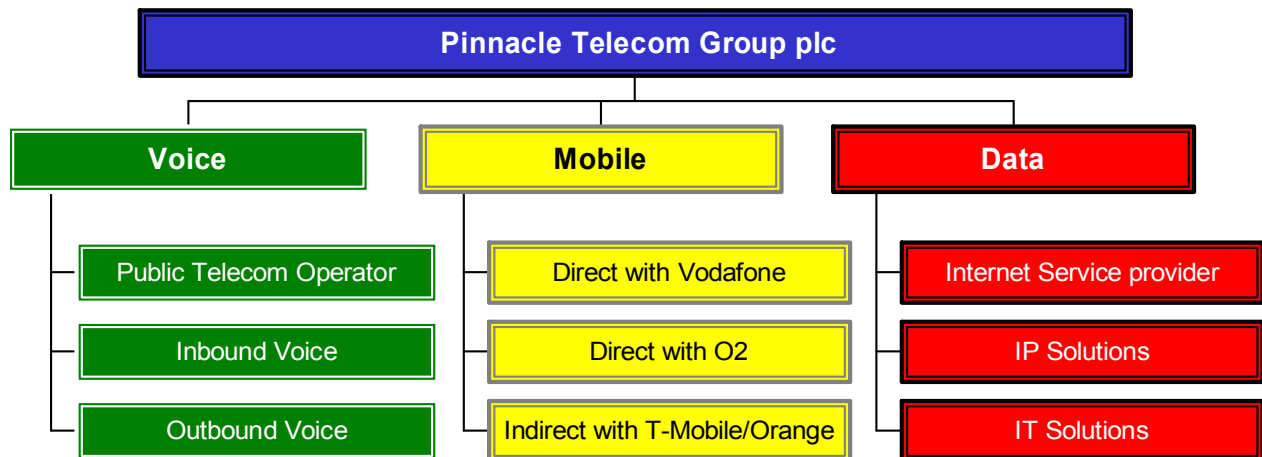
<sup>1</sup>Includes interests of his wife, N. Patel

<sup>2</sup>Includes the interests of R. Alexander

## Overview of Operations

Pinnacle Telecom Group plc is an integrated value added, solutions based provider of converged telecommunications services, to the UK SME market of 1.4 million companies that employ less than 250 people. The company provides a wide range of customer solutions including telecommunications calls and access, consultancy, IT support, mobile solutions both voice and data and hosted broadband voice services.

Chart: Group Divisional Reporting Structure



Source: Company

Pinnacle is a fully licensed Public Telephone Operator with its own telephone network, it has interconnects with BT, Virgin Media and THUS. In addition to traditional telephony ('landline'), the group has its own hosted VoIP (Voice over Internet Protocol) platforms and engineers.

Pinnacle is Scotland's oldest ISP as well as a founder member of Nominet, which operates

from the group's Glasgow data centre to service it clients, which include leading companies such as Loganair, Flybe, Sally Salon Services and Holiday Inn Express. It also has connected data centres in Brighton and London.

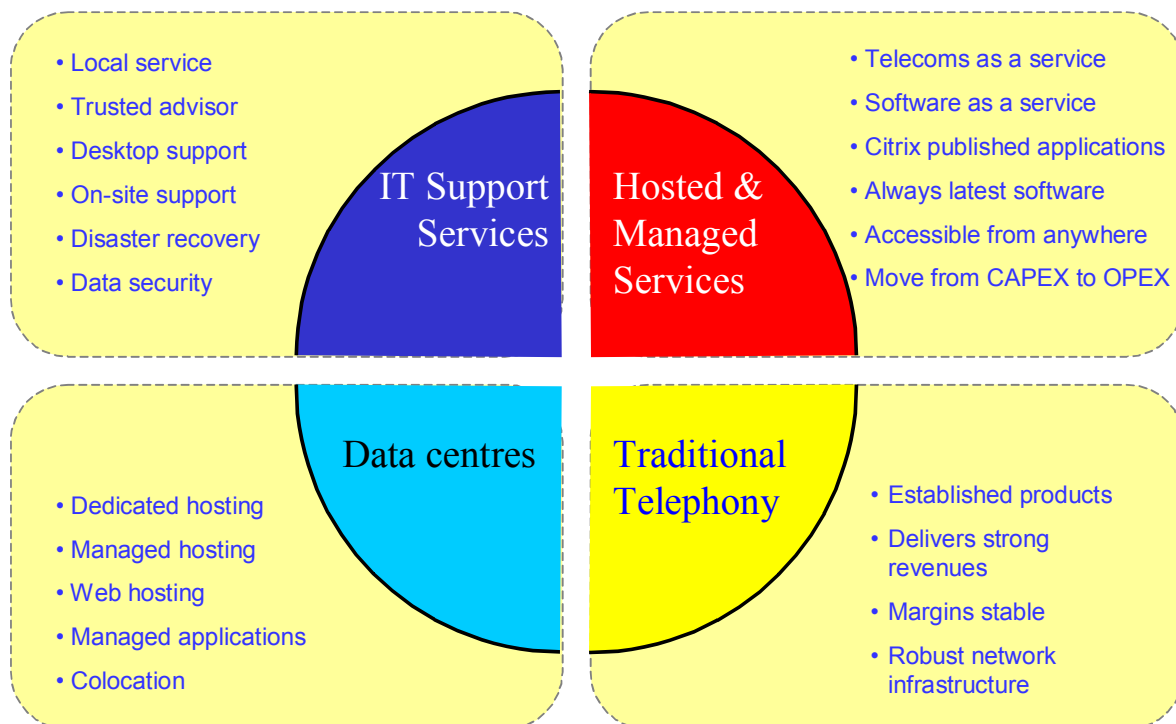
The group has direct agreements with Vodafone and 02 as well as indirect agreements with Orange and T-Mobile.

In summary, Pinnacle is one of Scotland's leading providers of hosted converged telecom solutions, that brings together next generation fixed and mobile telephony, VoIP, broadband, and IT/IP solutions.

## Strategy for Growth

The management team led by CEO Alan Bonner, outlined the group's long term strategy following the reversal of Pinnacle Telecom into Glen in June 2007, which was to establish a SME focused, value added, solutions based provider of next generation, hosted, converged communications services. Obvious, the emergence of the cloud has now strengthened that earlier vision.

### Chart: Strategic Vision

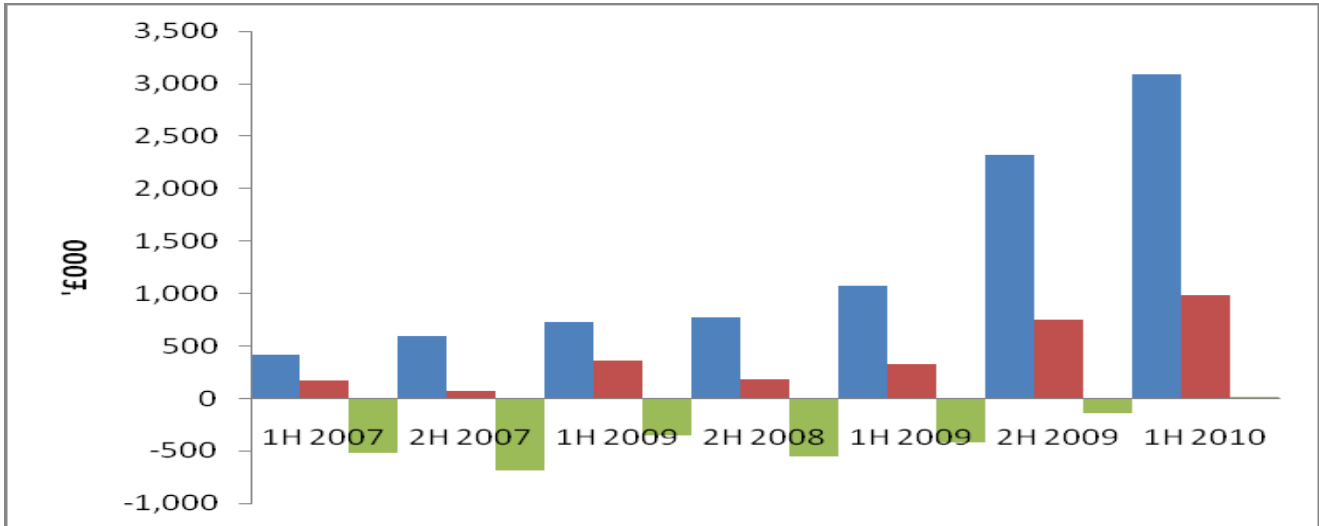


Source: Company

However, the team's immediate priority when laying out the original five year plan was to stabilise, rationalise and return to sustainable profitability the existing group, whilst not missing strategic opportunities that strengthen the service offering. This phase has been successfully completed as confirmed by the recent interim results that are commented

upon later. The company is now positioned to drive itself forward through a combination of organic and acquisition led growth.

**Table: Half Year Revenues, Gross Profit & Profit/Loss- £ million**

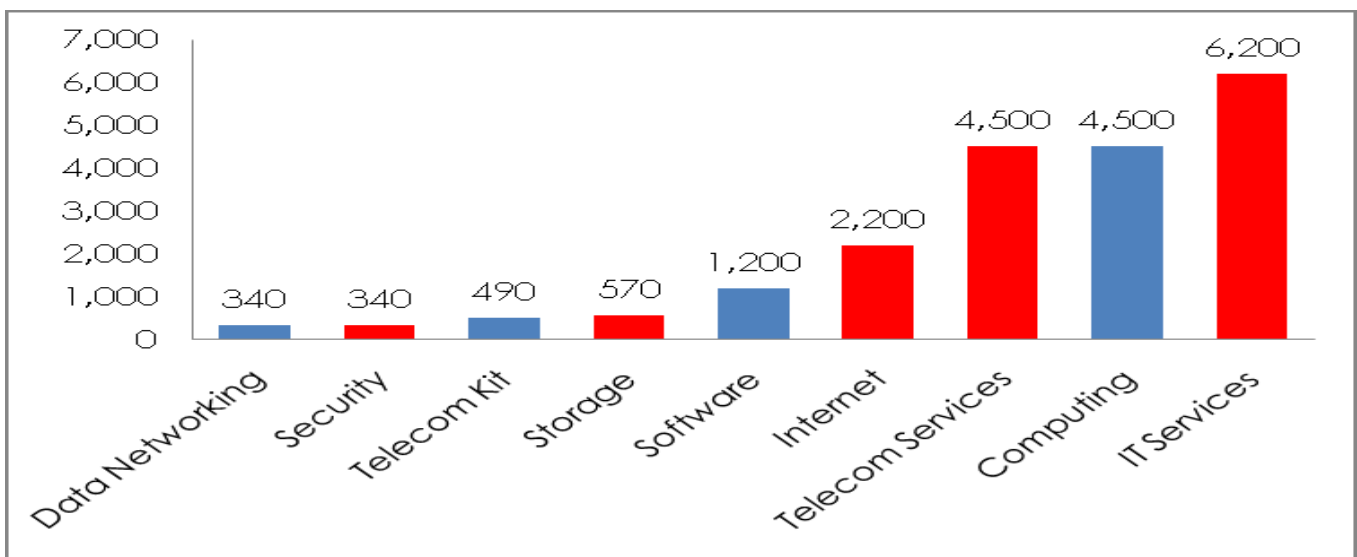


Source: Company

Pinnacle determined that the large UK SME market for converged next generation, hosted communications services was, and remains, poorly addressed and highly fragmented (e.g., 600 – 1,000 UK resellers). There are some 1.4 million SME's in the UK each employing less than 250 people and generating sales revenues of £1.5 trillion per annum or 51% of UK GDP; of which 33% are situated in London and the South East.

In a recent analysis, BT estimated that UK SME's spend £20.3 billion per annum on ICT and we believe that about £14 billion of that spend is an immediately addressable opportunity for Pinnacle (highlighted in red in the following Chart).

**Chart: UK SME ICT Purchases, £ million**



Source: BT market studies, April 2010



The BT analysis indicated that the annual growth rates for those segments that Pinnacle is addressing ranges from 24% - 40% (see following Table).

**Table: UK SME ICT Growth Rate for Pinnacle's Offering**

<b>Market Sector</b>	<b>SME Spend pa, £ million</b>	<b>Growth Rate pa</b>
Security	340	40%
Storage	570	32%
Telecom Services	4500	24%
IT Services	6200	28%

*Source: BT market studies, April 2010*

We believe that Pinnacle's underlying organic growth rate, based upon BT's analysis, should be 27% pa if it maintains market share or considerably higher if its offering is acquiring market share. However, Pinnacle has stated that, within the next five years, it expects to grow revenues to between £100 million and £200 million. It is obvious that this cannot be achieved through organic growth alone. The sales revenue gap will be plugged through targeted strategic acquisitions for which there appear two approaches:

- Strengthen the technical service offering; and
- Deepen the customer pool.

The former will be achieved through the acquisition of companies in EBITDA multiple range of 2 – 6 times, while the latter on the basis of buying customer base acquisitions on monthly gross profit multiples of 15 – 24 times depending upon circumstances. All acquisitions should present additional group cross selling opportunities.

Moreover, the company is confident that acquisitions can be quickly integrated (i.e., typically within 90 days) and that there will be good synergy opportunities, which will enable the elimination of duplicated centralised functions, e.g., finance, customer care and billing.

## **Recent Results**

Pinnacle began a five year strategic repositioning in 2007, with the early years focused upon stabilising and turning around the business, whilst at the same time strengthening and positioning the service offering, in line with the long term strategy of creating an integrated SME focused, hosted, converged communications group. We believe the interim results indicate that the final phase of the five year plan is about to commence in earnest, i.e., delivery of sustainable profit growth and cash generation.

Group sales revenues for the six months ended 31 March 2010 increased 188% from £1.077 million to £3.102 million, benefiting for a full six months contribution from Accent Telecom (acquired June 2009) and an initial three months from Solwise Telephony (acquired January 2010). Nevertheless, as can be seen from the following table, the group has continued to build upon the earlier second half period's progress.



**Table: 6-monthly Divisional Sales £000**

<b>6 months ended</b>	<b>31 March 2008</b>	<b>30 Sept. 2008</b>	<b>31 March 2009</b>	<b>30 Sept. 2009</b>	<b>31 March 2010</b>
Mobile Services	118	50	59	273	332
IT Services	84	43	48	523	327
Other Comms	524	677	969	1,319	2,442
<b>Group Sales</b>	<b>726</b>	<b>770</b>	<b>1,077</b>	<b>2,115</b>	<b>3,102</b>

Source: Company

Cost of sales increased 173.6% from £0.753 million to £2.059 million, which was 14.4% points less than sales growth due to higher recurring income (94% of income is recurring) together with a progressive shift towards the newer higher margin services. Consequently, gross profit increased 221.5% from £0.324 million to £1.042 million and the margin increased 3.5% points to 33.6%.

Pinnacle maintained a firm grip on administrative expenses, which increased a relatively modest 35.7% year on year to £1.002 million and there remains scope for further expenses to be driven out as Accent is further assimilated and Solwise integrated. Resulting in operating profit (before amortisation, impairment of goodwill and exceptional items) swung from a comparative loss of £0.414 million to a £0.041 million profit.

**Table: Profit & Loss Account (continuing operations), £000**

<b>6-months ended 31 March</b>	<b>2010</b>	<b>2009</b>	<b>% change</b>
Mobile Services	332.3	59.1	461.9
IT Services	327.1	48.3	576.8
Other Communications Services	2,442.4	969.5	151.9
<b>Revenues</b>	<b>3,101.7</b>	<b>1,076.9</b>	<b>188.0</b>
Cost of Sales	(2,059.4)	(752.8)	173.6
<b>Gross Profit</b>	<b>1,042.3</b>	<b>324.2</b>	<b>221.5</b>
Margin	33.6%	30.1%	
Administrative Expenses	(1,001.5)	(737.9)	35.7
<b>Operating Profit/(Loss)<sup>1</sup></b>	<b>40.8</b>	<b>(413.7)</b>	<b>NA</b>
Margin	1.3%	(38.4%)	
Associated Company	4.6	0.0	NA
Amortisation of Intangibles	(152.6)	(95.5)	59.7
Exceptional Acquisition Costs	(18.2)	0.0	NA
Interest Receivable	0.0	0.7	(99.7)
Interest Payable	(10.6)	(1.1)	861.3
<b>Pre-tax Profit/(Loss)</b>	<b>(136.0)</b>	<b>(509.7)</b>	<b>274.7</b>
Taxation	0.0	0.5	NA
<b>Loss – Continuing Operations</b>	<b>(136.0)</b>	<b>(509.2)</b>	<b>274.4</b>
Loss – Discontinued Operations	(30.0)	(3.7)	NA
Loss for Period	(166.0)	(512.9)	208.9
<b>Loss per share – continuing operations</b>	<b>(0.01p)</b>	<b>(0.04p)</b>	<b>300.0</b>
Loss per share – Group	(0.01p)	(0.04p)	300.0

Source: Company

Notes:

<sup>1</sup> Operating profit/(loss) before amortisation, impairment of goodwill and exceptional items

Headline or reported pre-tax loss fell from £0.510 million to £0.136 million despite higher amortisation charges (£0.153 million v £0.096 million), exceptional charges ((0.18 million v £0.0 million) and finance charges (£10.6 million v £0.4 million) and an initial £0.005 million contribution from a related company. This resulted in a loss per share for the six month period of 0.01p against 0.04p for the comparable period.

Importantly, Pinnacle has proven its technology is robust, and during February 2010, Pinnacle successfully tested its hosted voice (VoIP) and data application for the BBC, which was later used for the complete TV coverage of the BBC Election Special on 6<sup>th</sup> and 7<sup>th</sup> of May; this bespoke network comprised of 550 voice and data circuits connecting 198 locations within the UK.

This contract win and endorsement has resulted in Pinnacle providing similar bespoke virtual networks for some of the UK's biggest outdoor festivals, including The Chelsea Flower Show, Donington Download, Evolution, Big Chill, V Festivals, Leeds Festival, Glastonbury, T-in-the-Park, Latitude, Hyde Park Festival, T4 on the Beach and Shambala.

All of these higher margin contracts will have contributed during the current year's second half ending 30 September 2010; we guesstimate that these contracts may add at least £1 million to sales revenues and on a very healthy double digit operating margin, even allowing for setup costs that will benefit future years as the contracts are renewed.

#### Table: Forecasts £000

Year ended 31 September	2011E	2010E	2009A	2008A	2007A
<b>Turnover</b>	<b>8,500</b>	<b>6,400</b>	<b>3,192</b>	<b>1,495</b>	<b>1,015</b>
Cost of sales	(6,157)	(4,407)	(2,201)	(959)	(778)
<b>Gross profit</b>	<b>2,343</b>	<b>1,993</b>	<b>991</b>	<b>536</b>	<b>237</b>
Margin	27.6%	31.1%	31.0%	35.8%	23.3%
Amortisation	(269)	(269)	(312)	(170)	(66)
Administration costs	(2,150)	(1,923)	(1,574)	(1,434)	(1,445)
<b>Operating profit</b>	<b>(75)</b>	<b>(200)</b>	<b>(895)</b>	<b>(1,068)</b>	<b>(1,274)</b>
Margin	(0.9%)	(3.1%)	(28.0%)	(71.5%)	(125.5%)
Related companies	15	9	4	0	0
Interest paid	(24)	(23)	(5)	(3)	(13)
Interest receivable	0	0	1	4	3
Exceptional items	0	(53)	0	0	(1,300)
<b>Pre-tax profit – Reported or Headline</b>	<b>(84)</b>	<b>(266)</b>	<b>(895)</b>	<b>(1,067)</b>	<b>(2,583)</b>
Margin	(1.0%)	(4.2%)	(28.0%)	(71.4%)	(254.5%)
<b>Pre-tax profit (before exceptionals &amp; goodwill amortisation)</b>	<b>185</b>	<b>55</b>	<b>(583)</b>	<b>(897)</b>	<b>(1,218)</b>
Margin	2.2%	0.9%	(18.3%)	(60.0%)	(120.0%)
Taxation - reported	(9)	0	0	2	(0)
Retained profit	(92)	(266)	(897)	(1,631)	(3,005)
<b>EPS (reported) (p)</b>	<b>(0.01)</b>	<b>(0.02)</b>	<b>(0.07)</b>	<b>(0.09)</b>	<b>(0.46)</b>

Source: Company and Growth Equities & Company Research

In addition, the earlier momentum established across the group has been maintained, which augurs well for the full year outcome with further strong growth expected in the following year. However, gross margins may be modestly and temporarily constrained (see following Table) due to additional costs to support initial infrastructure demands for the rapidly expanding, bespoke virtual communications contracts. Nonetheless, the group will continue to move further into the black on an underlying pre-tax profit basis.

The group's balance sheet remains robust net cash of £0.419 million as at 30 September 2009 and which we estimate, in the absence of acquisitions, will increase to £0.581 million by the end of the 2011 financial year as the company becomes sustainably cash generative. The balance sheet appears light in fixed assets terms but this is not unusual for an increasingly software-based, acquisition driven and IP rich company.

**Table: Balance Sheet £000**

<b>Year ended 31 September</b>	<b>2011E</b>	<b>2010E</b>	<b>2009A</b>	<b>2008A</b>
Intangible assets	488	757	864	718
Tangible assets	90	122	134	134
Investments	194	179	170	0
<b>Fixed assets</b>	<b>772</b>	<b>1,057</b>	<b>1,168</b>	<b>852</b>
Stocks	49	35	26	0
Trade Debtors	749	689	561	269
Other Debtors	543	483	369	64
Cash	766	503	586	546
<b>Current assets</b>	<b>2,107</b>	<b>1,711</b>	<b>1,542</b>	<b>879</b>
Loans	3	3	3	7
Trade Creditors	1,108	883	883	354
Other Assets	472	508	738	214
<b>Current Liabilities</b>	<b>1,583</b>	<b>1,395</b>	<b>1,625</b>	<b>575</b>
<b>Total Assets less Current Liabilities</b>	<b>1,296</b>	<b>1,373</b>	<b>1,085</b>	<b>1,156</b>
Loans	181	247	164	0
Other	0	0	0	0
<b>Creditors &gt; 1 year</b>	<b>181</b>	<b>247</b>	<b>164</b>	<b>0</b>
<b>Net Assets</b>	<b>1,115</b>	<b>1,126</b>	<b>922</b>	<b>1,156</b>
<b>Gearing Ratios</b>				
Net Debt/Net Assets	(52.1%)	(22.4%)	(45.5%)	(46.6%)
Gross Debt/Net Assets	16.6%	22.2%	18.1%	0.6%

Source: Company and Growth Equities & Company Research

## Valuation

We have valued Pinnacle Telecom using an Enterprise Value/Sales ('EV/Sales') methodology, which we believe conservatively values the growth potential as the group moves into sustainable profitability and cash generation. Therefore, with the shares trading at 0.27p, the 2009 financial year Enterprise Value was £3.263 million, which is 1.02 times reported 2009 Sales of £3.192 million.

We estimate that by the end of the 2011 financial year, the group will be profitable and increasingly cash generative, such that (in the highly unlikely event of no further acquisitions) Pinnacle will close the year with net cash of £0.581 million.

Therefore, if the shares were to trade on a similar EV/Sales multiple, then, based on our conservative 2011 forecasts, the shares should be 0.53p and with the shares trading at 0.27p we recommend the shares as a **buy**.

### Forecasts Table

Year to 30 <sup>th</sup> September	Turnover (£000)	EBITDA (£000)	Pre-tax Profit (£000)	Earnings Per Share (p)	Price Earnings Ratio (x)	Dividend (p)	Yield (%)
2007A	1,015	(1,114)	(2,583)	(0.46)	NA	0.0	0.0
2008A	1,495	(839)	(1,067)	(0.09)	NA	0.0	0.0
2009A	3,192	(504)	(895)	(0.07)	NA	0.0	0.0
2010E	6,400	179	(266)	(0.02)	NA	0.0	0.0
2011E	8,500	305	(84)	(0.01)	NA	0.0	0.0

Source: Company and Growth Equities & Company Research

This research note cannot be regarded as impartial as GE&CR has been commissioned to produce it by Pinnacle Telecom Group plc, it should be regarded as a marketing communication.

The information in this document has been obtained from sources believed to be reliable, but cannot be guaranteed. Growth Equity & Company Research is owned by T1ps.com Limited which is commissioned to produce research material under the GE&CR' label. However the estimates and content of the reports are, in all cases those of T1ps.com Limited and not of the companies concerned. This research report is for general guidance only and T1ps.com Limited cannot assume legal liability for any errors or omissions it might contain. Readers of this report should also be aware that because this research is not independent that there is no prohibition on dealing ahead of the dissemination of it.

The value of investments can go down as well as up and you may not get back all of the money you invested; You should also be aware that the past is not necessarily a guide to the future performance. Finally, some of the shares that are written about are smaller company shares and often the market in these shares is not particularly liquid which may result in significant trading spreads and sometimes may lead to difficulties in opening and/or closing positions. Before investing, readers should seek professional advice from a Financial Services Authorised stockbroker or financial adviser.

T1ps.com Limited is authorised and regulated by the Financial Services Authority (FSA Registration no. 192801) and can be contacted at 44 – 46 New Inn Yard, London, EC2A 3EY

email [philip.morrish@gecr.co.uk](mailto:philip.morrish@gecr.co.uk) - fax 020 7628 3815 – tel 020 7562 3362

# Election night *special*

High profile contracts do not come much more prominent than providing a wide range of communication applications for the BBC's Election Day news coverage. The solutions provided have to work first time and every time on the day.

This was the prospect facing Solwise, the specialist hosted telephony division of Pinnacle Telecom Group plc, when they were asked in February 2010 to suggest a communications solution to allow the BBC to communicate easily between all the hundreds of different locations they would report from throughout their coverage including TV Centres in London and Manchester.

## Solution

Solwise was already a supplier of hosted telephony solutions to the BBC via their proven SIPswitch platform. They therefore planned to locate 90 IP handsets at each of the two TV Centres in their respective main Election Night studios and support over 300 analogue and ISDN-based extensions dialling into SIPswitch from other sites around the country. Solwise were given just two weeks notice of a full rehearsal to be held on 15 February 2010, the success of which resulted in them being awarded the contract. At that stage the BBC believed the earliest an election could have been called was 1<sup>st</sup> March.

In locations around the rest of the UK, for example in constituency counting halls, political party headquarters and special sites such as the Andrew Neil election night boat moored on the Thames embankment, a combination of analogue and ISDN lines were installed for contact to and from the TV Centres.

Here Solwise drew on the support of their parent company, Pinnacle Telecom Group plc, a BT Wholesale partner with WLR3 access via Strategic Imperatives. Lines were installed by Openreach and some locations were 'very challenging' including the London boat which would only be in position for a period of just 18 hours.



In the TV Centres Solwise installed Virtual Access GW7000 series dual ADSL Routers, each of which provided a Layer 2 MLPPP Bonded connection over two Annex M DSL circuits from Opal Telecom. Each Virtual Access Router supported 45 snom 320 IP handsets so two Routers were installed in each location. The Manchester and London TV Centres were mirrored to provide the BBC with full access and resiliency.

Should a circuit fail in London the others would failover to maintain the service in an instant and were circuits to fail in Manchester then service would automatically be maintained for that TV Centre by London – and of course vice versa. The TV Centres in London and Manchester were connected to each other by optical fibre links. Such a level of multiple failover provision would ensure complete continuity of service on Election Day for the BBC.

The use of the Virtual Access dual ADSL Routers by Solwise was recommended because of their flexibility, reliability and MLPPP bonding capability.

Nick Sacke, Head of Sales and Marketing Support at Pinnacle said, "The ability to properly bond two ADSL2+ circuits reliably is fairly unique and by using Annex M technology we were in this instance able to achieve guaranteed peak upstream speeds of 3Meg. In our opinion Virtual Access has produced a highly scaleable and robust

Multilink PPP solution for bonded voice connectivity, prior to which we had only ever got Multilink PPP to work for data communications applications."

The Virtual Access Router has proved to be very stable and reliable in use as well as being highly cost-effective. The return on investment achieved is outstanding and for Solwise this is especially so as our events activities around the UK mean we can use their Routers over and over again.

"From an engineering perspective the Virtual Access Router also brings us some unique support benefits. A built-in modem means that we can configure the unit even if the DSL circuits are down.

"The Virtual Access centralised router configuration utility, along with standard configuration profiles also helps simplify and speed up deployments. In the case of the BBC installation for example we used a standard profile for voice communications. In the case of other client's projects requiring data services, we would use a separate router profile. Either configuration profile can be provisioned to a Virtual Access Router automatically, upon connection to the ADSL circuit.

"The use of Virtual Access Routers for resilience, failover and high-speed access complements our business very well where the key differentiator is often the rapid deployment of hosted telephony services."