It's Good To Talk…….

Remember when we all used to have to contact each other via landline telephones and by hand written or typewritten letters that were dependent on postal systems. When electronic goods in general were really expensive & mobile phones used to be the size of house bricks? And when Apple's main product was the Macintosh followed by their saving grace…..theIPod.

Before terms and acronyms, yawn…(MOVE ON TO NEXT PARAGRAPH) like 2G; 3G; 4G; Bluetooth; Bps;Cellular; Coverage; Digital Zoom; EDGE; GB;GPS; GPRS; GSM; Hands-free; HSC SD; HD;HSDPA; HSUPA; IM; IMAP; IrDA; Java; Kbps; LCD; LED; MB; OS; POP3; PUK; QVGA; SAR; TFT; VGA and WiFi and there are thousands more!

It has all become another language, this is highlighted ina comedy sketch by brilliant British comedy legends Ronnie Corbett & Harry Enfield entitled "My Blackberry Is Not Working" on YouTube. Definitely worth a watch as it is truly hilarious!

I can remember my first Motorola mobile phone fifteen years ago which was still chunky; text messaging people was still coming in; my work computer was an IBM with a green monochrome monitor, the printers were huge&noisy drum printers; laptops if picked up incorrectly could slip one or two of your spinal discs; tablets were still something you obtained from a pharmacy and the internet was not yet main stream.

My how thinks change; Apple is now one of the most successful & profitable companies in the world. Motorola who produced the world's first portable mobile phone in 1973 were bought out by Google; which was only registered as a website domain in 1997. Mobile phones are small devices that you can easily fit in your pocket, laptops and tablets get as light as 1.36kg, you can now get all in one printers which are now quiet and cheap to buy; albeit the ink cartridges for the things are an exorbitant price and now how could we live without the internet!

Now mobile phones don't just make phone calls they sync with the internet downloading your work and personal emails; access webpages; send text messages; incorporate a calendar; store your photos; take photos; tell you the weather; provide maps; play videos; play music and the list goes on and on.

It is estimated that the number of mobile phones will exceed the world population in 2014, that's over 7.3 Billion active mobile phones! There are more than a hundred countries throughout the world where the number of mobile phones exceeds the countries' populations. Russia, for example, has 1.8 times more active mobile phone accounts than people. Brazil has 1.2 times as many.

Most of the active devices exist in Asia, particularly China, which is considered by the International Telecommunications Union to be the main market for smartphones and mobile phone growth. Currently, there are roughly 6 billion active mobile phones in the world.

Based on the 6 billion mobile phones in use, only around 1.1 billion of them are mobile-broadband devices. This doesn't mean that everyone around the globewill have one, or even that mobile service will exist everywhere. It is down to the increasing number of people that own multiple devices, which will continue to grow as more and more people are given secondary phones to be used for work purposes (the main reason most people would need more than one device).

Now the above leads me nicely into Genesis Technical Systems!

Genesis was founded in Canada in 2008 by a former telecoms chief designer, Stephen Cooke. The UK subsidiary and operating business was established in 2009 and is based at the Warwick University Science Park.

Genesis has developed a patented technology that will redefine the future of broadband for an estimated 300 million users worldwide by allowing high speed broadband of up to 400mb/s to people and homes even in the most rural locations without the need to deploy highly expensive and uneconomical fibre optic cable and at a cost of only 1-10% of that of installing fibre.

This is achieved by utilizing the existing copper wire infrastructure.

They have also developed another product specifically for Mobile operators who have an overwhelming problem right now, coping with the huge demand placed on the current 3G base station infrastructure by mobile phones.

Digital Subscriber Lines (DSL) is a common technology delivering internet access to millions of telecommunications customers worldwide. However, even latest generation DSL suffers from being very sensitive to the distance that the signal has to travel from the exchange to the end users home and bandwidth 'falls off' rapidly the greater the distance.

Optical fibre based internet is prohibitively expensive to deploy and non-economical in rural areas. BT estimated it would cost GBP 30 billion to layfibrethroughoutthe UK and France Telecom estimated for them it would be at least a 30 year payback on their investment.

For mobile operators using 3G and Long Term Evolution(LTE) technology their problemis associated with 'backhaul' capacity as a result of mobile phones using data-heavy applications such as videos and the difficulty is found at the base stations. Demand of this traffic is expected to grow by 1250% per cell site in 2014 alone. Current 3G base stations can only offer 8mb/s upstream and downstream.

Genesis simply re-use the existing copper infrastructure in an optimum way. Over timemassesof copper wireworth trillionsofdollars has been laid from telephone exchanges to housesthroughouttheworld.

What Genesis has done is to move the sharing point closer to your neighbourhood. With DSL Rings they take the strength of numbers by 'bonding' multiple pairs of existing copper wires going to different houses in the neighbourhood to achieve high bandwidth in short distances from the local distribution point to the home. For the user it's a simple plug and play solution.

With the mBond solutions it also allows the same bonding to be used for 'backhaul' between exchanges and 3G base stations with up to 160mbphs upstream and downstream.

Key benefits for telecommunication companies, (Telcos) providing fixed line broadband:

- Significant savings on installation of fibre (1-10% of the cost) as infrastructure already exists.
- High speed broadband (up to 400mb/s) on Telcos existing networks with a simple solution.
- Shared bandwidth without compromising performance.
- A rural solution.
- Eco friendly solution by negating the need for fibre it significantly reduces the energy consumption and carbon footprint related to Fibre Optics production and installation.

Key benefits for Mobile operators:

- mBond solves 3G mast backhaul capacity problems where other solutions are not feasible.
- Costs per cell site significantly lower than alternatives (less than 3% of the cost of fibre and approximately 9% of the cost of microwave with improved performance).

How does it work?

The Home Gateway (HGW) is a proprietary solution provided by Genesis hardware and software embedded in a small modem box and is installed directly in the home.

The Convergence Node (CN) is the network piece of equipment that sits in the Distribution Point (the telegraph pole or cabinet serving a neighbourhood). The CN connects up to 12 houses in the "DSL Ring" with the Telcos main network at the Exchange, delivering the high bandwidth over the short distance from the Distribution Point to the Home Gateway box in each house in the 'ring'.

The Exchange Gateway (EXGW) is the third piece of the system and is not necessary in all cases. This is a server that sits in the Exchange and implements the logical bonding where older equipment does not allow this to be done natively.

Market Recognition:

Genesis has won a number of awards including:

- Winner Fierce Telecom Last Mile Innovation Award
- Winner TechRev Innovator Award
- Winner Connect Midlands Most Investable Company Award
- Winner The Venture Academy Most Investable Company Award

Market Opportunity:

- There are over 300 million fixed line broadband subscribers worldwide.
- There are over 500 fixed line Telcos worldwide, with over 1.2 billion copper phone lines installed.
- The Genesis DSL Rings offers Telcos the opportunity to offer genuine superfast 400 mb/s broadband service to even their most remote customers at a fraction of the cost of fibre (1-10%) and an ROI in typically 2-3 years instead of 20-30 years.
- Time to installation is one day compared with several months for Fibre Optic.

Private Equity (PE) is high risk, the flip side being high returns. PE should not exceed over 10% - 15% of your overall financial portfolio.

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