

Newsletter

Spring 2005

Welcome to this Edition

Dear GTWN members and friends,

This edition of our newsletter marks a very special occasion in our GTWN calendar: we are celebrating the lives and careers of two of our founding members, who each in their own way have made tremendous contributions to the telecommunications industry and the broader communications sector.

Dr Jessie McLeman is leaving BT's Wholesale Division after a long and distinguished career in which she has witnessed many changes - both in British Telecom and also in the telecommunica-

tions sector. We all wish her well in her new endeavours.

Janice Hughes, founder of Spectrum Strategy Consultants, is also marking a milestone in her career in the industry. It is more than ten years since she joined us as one of the founding Steering Committee members. Spectrum has grown in those years from a small group of enthusiastic and dedicated individuals with foresight about the changes about to take place in the communications world, to a world-renowned consultancy advising a range of government and commercial clients, with representative offices around the world.

Many of the GTWN European membership and their invited guests gathered to celebrate the lives of these two inspiring women at a luncheon held at Taylor Wessing, on Monday 24 January, 2005. On behalf of the GTWN steering committee, we hope that this successful event will signal the start of a very rewarding year for the GTWN membership around the world, and we extend our greetings to you all for a very happy and healthy 2005.

*Bridget Cosgrave
Speaker, GTWN*

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Future trends in the telecommunications - A view from the top

As we celebrate the lives and achievements of two of our founding members, we seek their views "from the top" about the future of our industry.

What do you see as the key evolving trends in the telecommunications sector over the next five years?

Janice Hughes: I believe the emergence of triple play as a driver of higher revenues and growth for operators is incredibly important. I also foresee the phone companies competing for customers by offering higher bandwidth and a vast diversity of voice

data and TV Services. There will be a huge emphasis on better customer services as the operators fight to retain or attract customers from their competitors. There will also be more convergence between fixed and mobile services as fixed and mobile operators try to optimise monthly ARPU's by being the sole supplier or interface to new voice and data media services, be they fixed or wireless networks.

Jessie McLeman: I see the key trends being the scope for significant enhancements and development of applications, some of

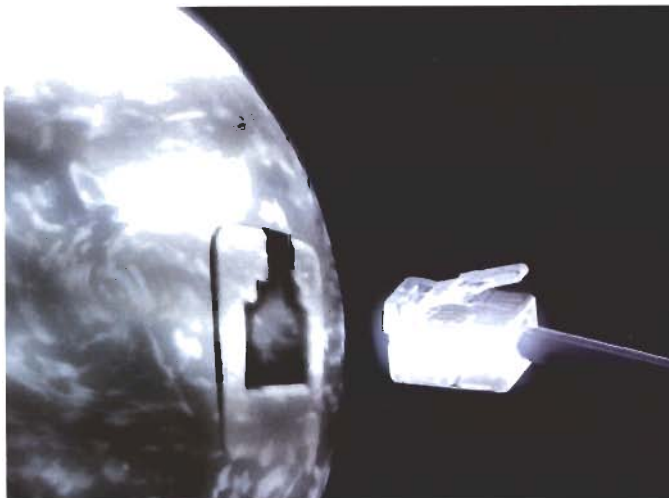
which are currently somewhat embryonic, as operators roll out new network technology. BT has announced its plans for rolling out a 21C network, and Ofcom and industry discussions have started. The new technology will allow tremendous opportunities, such as for personalisation and nomadic devices, video, messaging, multimedia applications etc.

In the UK the other issue of significance at this time is Ofcom's Strategic Review of Telecommunications. That will set the framework for the next decade. For the UK there has to be a continuing

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Is VOIP the new 'killer app'?

Vicki MacLeod, Secretary General, GTWN



During the early 1990s there was much talk about the need to find the so-called "killer app" - the application or service that would stimulate mass demand for new communication services, which in turn would encourage major new investment by new operators eager to compete with newly privatized and/or deregulated incumbents.

With the advent of 3G in the mobile sector, investors assumed that this would prove to be the killer app, and gambled vast sums on 3G spectrum accordingly. The resultant fall-out in the telecommunications sector, and the flight of capital out of the industry, seemed to sound the death-knell to the hype and hopes of both industry analysts and governments world-wide.

It is therefore perhaps not surprising that many are reluctant to highlight the issue of VoIP (Voice Over Internet Protocol) and its rapid development in recent months, for fear of perhaps getting their predictions wrong and evoking criticism. However, given the rapid rise in VoIP users in the developed world in the latter part of 2004, VoIP does now appear to be a clear leader in the stakes for a potential new killer application which will finally bring the use of

IP based technology into the mass market.

What has made the difference, of course, is the mass marketing and increased take up of broadband services around the world, stimulated by an 'arms race' amongst northern hemisphere countries with the Asian broadband tigers - South Korea and Japan. The US and EU have become increasingly concerned about the gap between their citizen's adoption of broadband (and the service offerings of broadband providers in their countries), and the number of high speed broadband users in Asia. Although the link between BB take-up and economic and social development is hard to make in precise terms, it is assumed by economists and government policy makers, based on past experiences of technological transformations such as the spread of railways, that the countries with the highest quality and most ubiquitous broadband services will take the lead economically as well in coming years. It is easy to understand, therefore, the high interest amongst governments in the rate of BB take up and penetration in their own countries.

The OECD now produces quarterly updates for its member countries on broadband subscribers, in order to answer the increasing

demand for information on how each is faring in the BB arms race. It is clear from OECD analysis that global broadband subscribers are now growing at a rapid pace, with just over 127 million (provisional figures) at June 2004. OECD countries are now, according to projections by the OECD secretariat, on track to have surpassed 150 million by the end of 2004.

Developing countries leading the way

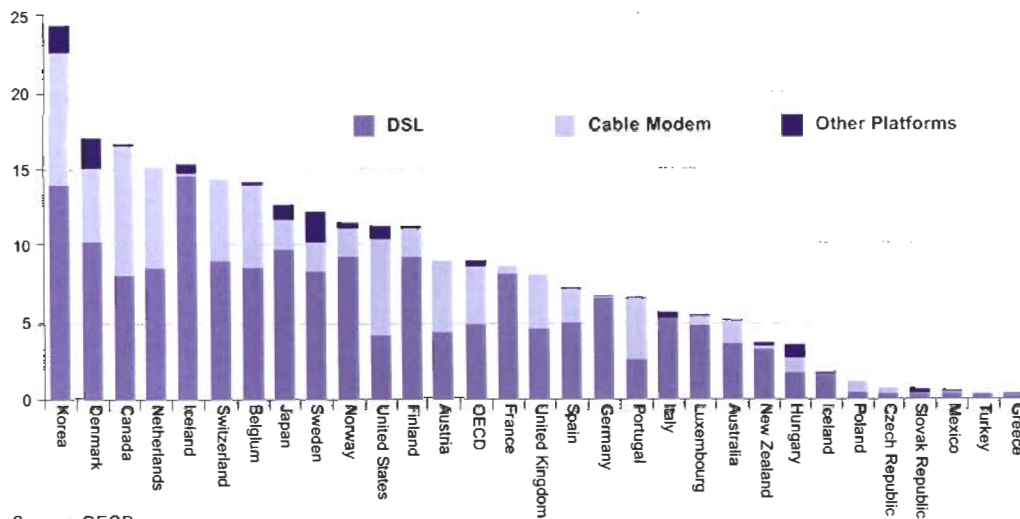
Many developing countries have now identified broadband as a key economic tool and are implementing strategies to encourage investment in both wireline and wireless platforms. The ITU in its recently released report, *Trends in Telecommunications Reform 2004-2005*, has predicted that mobile phones are expected to generate more money this year than traditional fixed-line services for the first time due to surging demand in developing countries such as China, India and Russia. In addition, China is projected to overtake the United States as the world's largest broadband market, according to a study by the ITU.

The telecom industry, comprising voice data, video and text services, was worth \$US1.1 trillion (€825 billion) in 2003 and the figure is expected to rise further. By the middle of 2004 there were 1.5 billion mobile phone subscribers compared with 1.2 billion fixed-line customers around the world.

In its study, which was done as part of the work resulting from commitments made at the World Summit on the Information Society (WSIS), the ITU makes clear that, although the developed world still accounts for the largest segment of the global telecommunications sector by value, the developing world is where much of the new growth in the number of subscribers is occurring and

4a. Broadband subscribers per 100 inhabitants in OECD countries, June 2004

Subscribers per 100 inhabitants



Source OECD

where most of the potential for future growth resides. Developing nations comprised 56 percent of the world's mobile phone subscribers by June, while between 2000 and mid-2004 they accounted for almost 79 percent of the new growth in the market, the report said.

Mobile phone use is also booming, particularly among poorer nations, thanks to the wider use of wireless platforms that erased the need to install expensive cables. As well, broadband subscribers grew to 102 million people by end-2003 in about 100 countries where such services are available, compared with 65 million a year earlier -- a growth rate of 57 percent.

While in terms of absolute subscribers, the United States was the largest single broadband market at the start of 2004, with over 25 million subscribers, the ITU predicts that this will not hold true for much longer, as China added 11 million new broadband users in 2003 to reach 13.5 million. And at that growth rate, China will overtake the United States by the end of 2004 as the economy with the most broadband users.

Many poor countries have a limited experience of fixed-line networks compared with the industrialised world because they developed their communications servic-

es during the birth of mobile phones and the rise of the internet. As a result, developing countries often have new approaches and interesting ideas about how to solve problems that have accompanied the new technologies to help their richer counterparts who still use regulations drawn up years ago.

First mover disadvantage?

This raises the question of whether some developed countries have a so-called first mover disadvantage in comparison. In all developed economies, governments and regulators alike are struggling to come to terms with the impact of new services such as VoIP on their legacy communications market, in particular whether or not the existing communications legislation and regulatory framework can be adapted to the challenges now facing traditional telephony. All regulators, including the UK's relatively new joint regulator, Ofcom, the US's FCC, Canada's CRTC, the European Commission and Australia's ACA, to name a few, are now engaged on strategic reviews of one sort or another to try to work out the impact of VOIP.

Some, such as the US and Canada, have resorted to an unsustainable fig-leaf proposal,

whereby PC to PC VoIP services are classified as internet services, and therefore outside the current scope of telecommunications regulation. However, any VoIP services which terminate on the PSTN and enable users to have a number in the current PSTN numbering range, are to be classified and regulated as telecommunications services. The UK regulator, Ofcom, is taking a more enlightened view, identifying a new number range for VoIP services, and rolling the whole issue into its overall strategic review of Ofcom's role in telecommunications regulation. (this is discussed elsewhere in this newsletter) On current indications, Ofcom will be prepared to forgo much of its existing micro-management of the telecoms sector in future, in exchange for much tighter regulation of what it calls equivalence of access for firms competing with incumbents. Key amongst the interests of most regulators at present is how to ensure continued access to emergency services, as well as the future ability to fund current universal service schemes. It is clear that many other regulators will also be forced, under the impact of VOIP on the market, to make adjustments to their current approaches to their competition and consumer protection measures.

... global broadband subscribers surpassed 150 million at the end of 2004 ...

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Janice Hughes - A retrospective

by Candace Johnson, Co-founder GTWN



Janice Hughes

It was Janice who coined the GTWN slogan, "The changing culture of communication" almost thirteen years ago.

This was before the World Wide Web attained mass consumer proportions and before the Internet Boom. It was, however, at the beginning of the Digital Revolution.

Janice knew that the Digital Revolution had the power not only

to change the world but also to bring about a new culture in communications. This culture would be far removed from the switches, the cables, the IAR's (International Accounting Rates), the POTS (Plain Old Telephones) that characterised the telecommunications world's pre-occupations of that time.

The new land that Janice foresaw was one of content, of colour, of diversity, of democracy. A telecommunications professional who was one of the few women partners at Booz Allen, she insisted that this new world, for all its seeming intangibility, for all the talk of "cyber universe", "virtual reality", ideas only hinted at the time, be well anchored in a regulatory, technical, ethical, social, and educational framework.

Janice understood that governments would have to know what was coming, how they should prepare and how their citizens would benefit from the wave descending on them. Telecoms Operators would have to have new structures, their teams would have to

have new skills. They would have to learn to either swim or sink.

And Janice understood that young people would have to be found who would remain true to the values and responsibilities we in the communications and media industry must bring to the world at large but that these young people, "the next generation" would also need to be inspired to seek and develop more meaningful ways of communication with the new possibilities presented them.

Janice expected all of us who gathered to found the GTWN to work toward this goal. And she expected no less of herself.

At a time when the name itself, Spectrum Strategy was unusual but portended all to come, Janice and her partners struck out to give substance, to give value, to give truth and beauty, indeed to give life itself to the new digital world.

White papers, studies, strategies, frameworks, communication tools. Janice and her team researched, wrote, and delivered it all.

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Janice is very unusual amongst consultants in that she's a creative force. Most consultants explain in forensic detail why new ideas can't work. What Janice does is to take a bad idea, find out its good points and refashion the whole proposition so that it can work. The fruits of Janice's work can be found all over the world – New Zealand, Hong Kong, Italy, Singapore all have a different telecoms environments as a result of Janice's creativity.

One other point – creativity without courage is whistling in the wind. Janice is fantastically courageous, fighting for her ideas and for her clients with great determination. This has helped her to have had such influence and is one of many things I miss about her, now we're not working so closely together

Kip Meek, senior partner, Content and Competition at Ofcom

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environment to attract investment in the networks and applications to support and develop the new technologies, and bring innovative services to businesses and consumers. This may see the emergence of new players as well as pose challenges for the industry today.

You have witnessed many changes over the past ten or fifteen years in the telecomms sector. In what way has the role of women in the industry changed over that time, and has the change been a positive one, or is there room for more improvement?

Janice Hughes: Women have permeated many levels of marketing, strategy and customer services, but, there are still relatively few role models in CEO positions in either fixed or mobile around the world. There remains enormous opportunities for women to step into positions as fixed/mobile operators of the past become multimedia based businesses, where the strengths of women become apparent.

Jessie McLeman: I am not convinced there are proportionately many more women in telecomms than there were 10 - 15 years ago

at the different layers of management. Indeed in BT it is recognised that the proportion of women has not moved. On the positive side attitudes are more open and there is recognition of the contribution of women. As an industry there is still much to be done to encourage young women into the sector as a career choice, and we need to think further how we can achieve that, working with the schools, colleges and universities.

Janice knew that the Digital Revolution had the power not only to change the world but also to bring about a new culture in communications.

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How big a threat is VOIP?

The significant government and regulatory interest in the rise of VoIP services indicates that they may now also be aware of its potential to undermine the current telecommunications industry as we know it. The dramatic rise of Skype, for example, with its free telephony software has attracted the glare of the media and focused attention on a market in decline: fixed-line voice. With software downloads now nearing 30 million and an estimated 9 million active users at October 2004, Skype has eclipsed all other VoIP providers and now claims to be the 'fastest-growing globally available communications tool in history'. Traditional telephony providers, as well as governments, are finally sitting up and paying attention.

The proposition from Skype (and other VoIP providers) is different

from the previous generation of VoIP providers because it shifts value away from the network to the software application and to the community of users themselves. Most previous VoIP providers positioned themselves as direct replacements for the PSTN and emulated its services, while the new breed are more informed by Internet developments such as instant messaging and file sharing. At the heart of this new proposition is free on-net calling to other members of the user community, which directly threatens the core 'Friends and Family' markets of incumbents.

At present, private VoIP applications are responsible for only a small amount of call substitution from the PSTN, but this promises to increase substantially with the increasing penetration of broadband. When examined in the context of fixed-mobile substitution the threat to fixed-line incumbents from VoIP becomes clearer. If

users have three types of voice service available - PSTN, VoIP and mobile - the combination of cheap mobile bundles (especially from 3G) and VoIP could make the PSTN very vulnerable.

A new telecommunications paradigm

New VoIP services are being launched on a regular basis. North American based Vonage, which claims to be the leading broadband phone company, is at the time of writing about to launch in the UK market. It has also teamed up with one of the largest suppliers of phones in North to develop a broadband cordless phone system, configured with Vonage's service. The phone plugs directly into a customer's broadband connection or router, eliminating the need for a stand alone adapter and telephone.

And in a move very much inspired by Skype, Neuf Telecom in France has launched its own Wengo

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 service, which will enable all French Internet users, regardless of their Internet service provider and their broadband Internet access mode (ADSL, WiFi, cable), to make calls using VoIP, through their PC. They will be able to use the service from their phone, connected to a dedicated USB modem (Wenbox), which will be

priced at 30 euro. The official launch is expected on 13 January 2005.

Calls made between users will be free. A fixed rate of 6 euros per month will allow unlimited national and local communications, as well as two hours of communication with mobiles. Alternatively, per-minute tariffs will range from 1

euro cent to a fixed line in France to between 1.8 euro cent and 1 euro to a fixed line abroad. Calls to mobiles will be charged at 15 euro cents to a French mobile, and between 22 euro cents and 1 euro to an international mobile.

Wengo uses session initiation protocol (SIP), while most of the other clients, such as Skype, still

Skype explained¹

Peer-to-peer ("P2P") technology was first widely deployed and popularised by file-sharing applications such as Napster and KaZaA. In this context, P2P technology allows users to share, search for and download files. The P2P term has been widely used and just as often abused. Companies both large and small, self-proclaimed "pundits" and others trying to cash in on the "P2P buzz" use this term as long as it involves some direct communication between users or nodes. This description of P2P completely misses the point.

A true P2P system, in our opinion, is one where all nodes in a network join together dynamically to participate in traffic routing-, processing- and bandwidth intensive tasks that would otherwise be handled by central servers.

A true P2P application empowers small teams with good ideas to develop software and businesses that can successfully challenge those of large companies. True P2P, when applied to ripe markets, is disruptive technology.

Decentralized P2P networks have several advantages over traditional client-server networks. These networks scale indefinitely without decreasing search time and without the need for costly centralized resources. They utilise the processing and networking power of the end-users machines since these resources always grow in direct proportion to the network itself. Each new node added to the network adds potential processing power and bandwidth to the network. Thus, by decentralizing resources, second generation (2G) P2P networks have been able to virtually eliminate costs associated with a large centralized infrastructure.

P2P telephony became a natural next step where P2P could have a significant disruptive impact and Skype was founded to develop the first P2P telephony network.

Internet-based telephony - Voice-over-IP - (VoIP) has been around for years but has not reached the mainstream market. The reasons for this are quite clear to those of us who have tried VoIP software:

- Products which have a true cost-saving advantage over standard telephones do not have comparable quality.
- Call-completion rates are very low due to firewalls and the use of Network Address Translation (which renders over 50% of residential computers unable to communicate with traditional VoIP software).
- The User Interface is typically bloated and requires substantial configuration and technical skills.

Centralisation can overcome some of these difficulties by routing calls through firewalls or NAT's. However, this brings the cost of running the network to levels approaching that of the existing telecom networks. In addition, these costs scale proportionally with the number of users. The result is that companies operating such services typically allocate very little resources on their servers per user which seriously degrades the call quality.

The Skype team has succeeded in leveraging all of the available resources in a network. This has allowed us to raise the call completion rate and quality in the Skype network to levels exceeding that of POTS ("Plain Old Telephony System"). This is all achieved without the need for costly centralized resources. In addition, we also believe that we have created the most user friendly interface around!

The following are some of the techniques that Skype employs to deliver state-of-the-art IP-based telephony.

¹ from Skype website

use H.323. This gives Wengo the potential to offer value-added services, such as video communications, data sharing and conferencing. Wengo has also been developed using Linux, using standard and open protocols. This means that the intellectual property of the software is open to virtually any service provider.

Wengo will enable voice telephony to escape from the control of the network suppliers, and has originated from inside the telecommunications industry, not from external players such as MSN or Skype. The move from network service provider-controlled delivery to open source software and service provider-controlled delivery will accelerate the commoditisation of voice telephony and change the telecommunications industry as we have known it.

Firewall and NAT (Network Address Translation) traversal

Non-firewalled clients and clients on publicly routable IP addresses are able to help NAT'ed nodes to communicate by routing calls. This allows two clients who otherwise would not be able to communicate to speak with each other. Because the calls are encrypted end-to-end, proxies limit the security or privacy risk.

Likewise, only proxies with available spare resources are chosen so that the performance for these users is not affected.

Several new techniques were also developed in order to avoid end-user configuration of gateways and firewalls, whose non-intuitive configuration settings typically prohibit the majority of users from communicating successfully. In short, Skype works behind the majority of firewalls and gateways with no special configuration.

Global decentralized user directory

Most instant message or communication software requires some form of centralized directory for

the purposes of establishing a connection between end users in order to associate a static username and identity with an IP number that is likely to change. This change can occur when a user relocates or reconnects to a network with a dynamic IP address. Most Internet-based communication tools track users with a central directory which logs each username and IP number and keeps track of whether users are online or not. Central directories are extremely costly when the user base scales into the millions. By decentralizing this resource-hungry infrastructure, Skype is able to focus all of our resources on developing cutting-edge functionality.

P2P network technologies used by file-sharing applications would be almost suitable for decentralizing this, but those networks are fragmented in nature - a search does not reach all nodes in the

network. Clearly, in order to deliver high quality telephony with the lowest possible costs, a third generation of P2P technology ("3G P2P"), or Global Index (GI) was a necessary development and represents yet another paradigm shift in the notion of scaleable networks. The Global Index technology is a multi-tiered network where supernodes communicate in such a way that every node in the network has full knowledge of all available users and resources with minimal latency.

Intelligent routing.

By using every possible resource, Skype is able to intelligently route encrypted calls through the most effective path possible. Skype even keeps multiple connection paths open and dynamically chooses the one that is best suited at the time. This has the noticeable effect of reducing latency and increasing call quality throughout the network.



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Everyone who wanted to know what, why, when and how the new technologies would impact their countries, their companies, their content, their citizens came to Spectrum. Always, they received pure research, disciplined, structured knowledge. Everything that Janice does is marked by excellence and is future proof. If you take one of her white papers done on content or regulatory issues from ten years ago, it is as relevant, perhaps even more relevant today because people now understand the issues which were new to them then.

Throughout the entire time of building an independent company from the ground up to the internationally acclaimed success it is today, Janice has continued to support, inspire, mentor and give great priority to the GTWN.

She was the first to introduce Brazil Telecom's President Carla Cico, then a young Telecom Italia professional, to us in her Chester Mews headquarters so long ago. She was the first to insist in 1993 that we all communicate electronically, which of course we did, if for nothing else, not to disappoint her! She was the first to urge us

to seek content for our telco pipes. And of course, true to form, three years ago, she was the first to take digital photos of us at a GTWN meeting with her brand new mobile phone and send it to us.

Today, from Brazil to China, from Italy to South Africa, Janice Hughes can look at an exceptional body of women leaders who, indeed, followed her beacon in not only changing the culture of communications but, in passing the baton on to a next generation.

Jessie McLeman - A retrospective

by Candace Johnson, Co-founder GTWN



Jessie McLeman

I first met Jessie in 1991. She was head of BT's carrier relations office in Germany, a very senior and important position for someone of her years. I was later to discover that her superiors at BT knew exactly what they were doing by putting her there.

At the time, I was building Teleport Europe, Germany's first private independent international telco and satellite operator. It was criti-

cal for us to be able to buy satellite capacity from BT. Otherwise, we would be strangled by our domestic competitors, the Bundespost - Deutsche Telekom, who had a Government-sanctioned monopoly at the time.

I had heard much about Dr. Jessie McLeman. In Germany the title of PhD carried and carries an enormous amount of credibility. In addition, BT was determined to carve out its own independent niche in the European market. The people I knew within BT all said that Jessie was the one to talk to if I needed help in getting established.

At the time, Teleport Europe, based in Hanover, Germany, needed to purchase satellite capacity from an independent operator who was interested in working co-operatively with us.

The challenges confronting new entrants at the time may perhaps be hard to understand in the liberalised, international telecommuni-

cations arena of today. BT were seeking to put in place an "interconnect" agreement similar to that which new DSL or mobile operators have with incumbents today. The date however was not 2001, but 1991.

Amazingly, BT took up the challenge, but I believe in large part because of the determination of Jessie McLeman. She researched the issue from every angle. She manoeuvred it skillfully through the BT hierarchy, garnering support from all sides. She presented it to Eutelsat, of which BT was a signatory and whose capacity we at Teleport Europe wanted. She made certain every one of the myriad regulatory procedures governing satellite communications in those days was meticulously followed. She solidified the legal framework of the deal by relying on precedent created by other international trade cases.

Through repeated visits to the Ministry and the Bundespost itself,

Jessie managed to retain good relations between BT and the Bundespost in terms of terrestrial and international traffic, while pressing the case for growth in the satellite sector. As a result, in 1991, three months after soliciting BT's and Jessie's help, Teleport Europe was transmitting on BT satellite capacity from within Germany all across Europe.

It was a landmark event. It would take almost another year and a half for the regulatory policy, "Competition among Signatories" to catch up with the events, but Jessie McLeman set the clock running. By 1993 BT was the preferred satellite capacity provider in Germany, the Netherlands and France, bringing in millions for a

business originally thought of as a non-profitable niche.

This project turned out to be exemplary of Jessie McLeman's *modus operandi*. Building profitable businesses for BT, liberalising international telecommunications, creating solid regulatory frameworks, while at the same time helping and inspiring other women in telecommunications, have all been leitmotifs in Jessie's career and her way of life.

Be it as a Eutelsat Board Member representing BT and revolutionising the thinking of the time to bring more value to BT's shareholding: be it by having BT become a founding and vital member of the VATM, the Association of Private Telecom

Operators in Germany, thereby ensuring a mutually beneficial exchange between the UK and Germany in regulatory matters, another dossier which BT entrusted to Jessie in the late 90's; be it as a founder of the GTWN and the BT Women; be it as General Manager in BT Wholesale - Jessie has been the face and the spirit of BT to a number of national and international communities. Not surprisingly after a career of establishing long-term relationships and creating value in all she undertook, Jessie feels she should branch out in a new field and seek new horizons. We wish her well as she takes up the challenge. We already know the outcome.

In my view, Jessie has made an outstanding contribution to telecommunications over the years, not just for BT but also to the benefit of the wider telecommunications industry as a whole. Her passion and drive, her professionalism and her total dedication and commitment for doing what she believes is the right thing for telecommunications has earned her sincere respect from colleagues across the whole industry. She has worked for BT for 25 years, primarily in Product management roles but also, importantly, in international relations roles in Germany and on the board of EUTELSAT. But she is perhaps best known for her more recent contributions in the regulatory arena, both in BT Regulatory Affairs and also for BT Wholesale in her role as General Manager, Telephony Services. Her unique talents will be very much missed when she leaves BT next month, and she goes with our very best wishes. All her colleagues and friends from around the industry will also want to wish her well for the future.

Alison Ritchie, Chief broadband officer, BT

Entrepreneurship

Candace Johnson

Europe needs more entrepreneurship. Otherwise it will not have the next generation. It will have the lost generation.

Many people say entrepreneurship is about taking risks. They are wrong. It is about taking no risks because all the risks and chances to fail surround you anyway. It is about doing everything you can to make certain that you win. It is about never giving up, never accepting no, and never going away even when the others want you to.

Entrepreneurship is about Courage. Courage to build, to think big, and to go beyond yourself to achieve the impossible. Courage, first, to put your idea down on paper and then to make it happen, no matter what. Courage, in front of a thousand no's to pursue your vision because you know you are right.

Entrepreneurship is about Leadership. The ability to have everyone "buy in" on the goal and make it their own. The ability to communicate and inspire trust and confidence among your peers and those who depend on you.

Finally, and most importantly, entrepreneurship is about Personal Responsibility. The notion of personal responsibility is difficult to instill. When I was growing up, my mother and father told my brothers, sister, and myself that we could do anything we wanted to in life. We only had to work hard and well.

This approach implies and assumes a tremendous amount of freedom. Freedom of thought, freedom of action, freedom of mobility, "barrierless thinking", as Jack Welch would say. But freedom can only go hand in hand with personal responsibility.

In entrepreneurship, freedom translates into personal responsibility. Responsibility, to stay true

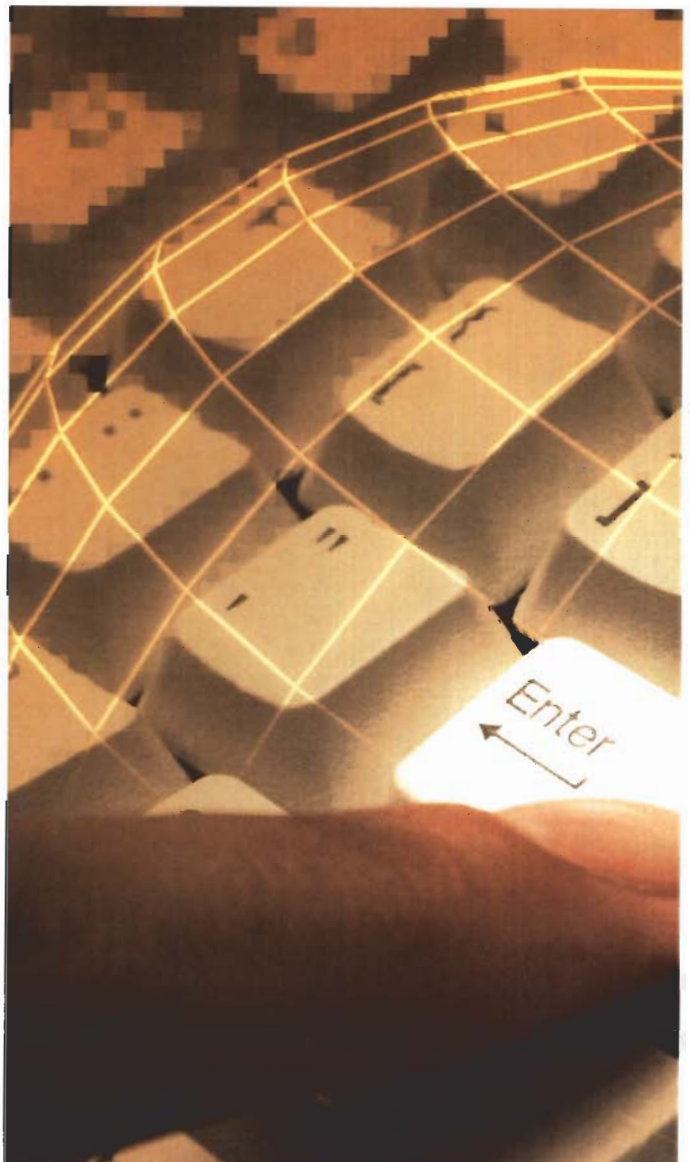
to the vision and not compromise it. Responsibility, to the shareholders and stakeholder employees and team to realise the expected and anticipated rewards and results. Responsibility to one's self and to the society as a whole to create and build something of value.

Being an entrepreneur is a tremendous burden. You carry this personal responsibility and burden around with you and it does not let you rest until you have achieved your goal. The moment that you achieve your goal, after years of work and dedication, is freedom and ecstasy

itself. That is until the next idea seizes you and pushes you further beyond all barriers.

Candace Johnson, Serial Entrepreneur and Founder/Co-initiator: SES Astra/SES Global; Loral Cyberstar Teleport Europe, Europe Online, The Association of Private Telecom Operators (VATM), Global Telecom Women's Network (GTWN), Johnson Paradigm Ventures, FMN Communications GmbH, Alpha Com GmbH, and Founding Investor/Member in Sophia EuroLab, Ariadne Capital, Sopha Business Angels.

It is about never giving up, never accepting no, and never going away even when the others want you to.

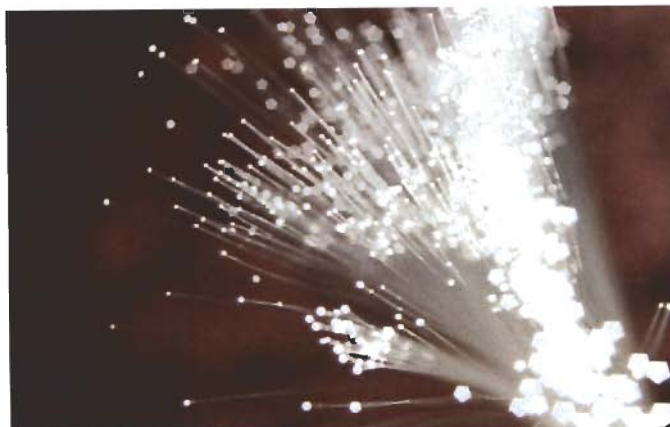


Ofcom's strategic review of telecommunications¹

Ofcom's Strategic Review of Telecommunications is the first wide-ranging analysis of the sector in the UK for more than a decade and will establish Ofcom's principles and approach for the future regulation of the UK telecommunications industry.

Ofcom's Phase 1 consultation (published 28 April 2004) indicated the following:

1. The telecoms sector is changing rapidly as it moves from historical business models based on the delivery of voice calls over switched-circuit networks to business models based on the delivery of data over internet protocol networks.
2. These changes bring uncertainty as well as opportunity, particularly for investors; yet companies have a limited opportunity in time to make the significant, long-term commercial decisions required if they are to remain competitive in the future.
3. The UK telecoms market offers choice and value to the end user in a number of areas, yet despite twenty years of regulatory intervention, competition in fixed line telecoms remains fragile. Additionally, many of the advantages upon which competitors have based their businesses are being eroded, not least by the transition to next generation networks.
4. Consumers' behaviour is changing as new technologies penetrate the mass-market. However, with growth in choice and innovation has come an increase in the potential for confusion, as consumers seek to navigate increasingly complex competitive retail markets.



Ofcom identified two key problems:

- Firstly, an unstable market structure in fixed telecoms, dominated by BT and with alternative providers that are, in the main, fragmented and of limited scale.
- Secondly, the continuance of a complex regulatory mesh, devised over twenty years of regulation and in many areas dependent upon intrusive micro-management to achieve its purposes, yet which, in aggregate, has failed effectively to address the core issue of BT's control of the UK-wide access network.

In its Phase 2 Report, issued in November 2004, Ofcom presented three options to address these issues:

- **Option 1: Full deregulation.** Removing the existing mesh of regulation entirely and relying instead on ex post competition law to resolve complaints would significantly reduce intervention in fixed-line markets. However, given BT's continued market power, this would be unlikely to encourage the growth of greater competition and as

such would not serve the best interests of the consumer.

- **Option 2: Enterprise Act investigation.** Ofcom could investigate the market under the Enterprise Act 2002, with the potential for a subsequent referral to the Competition Commission.
- **Option 3: BT to deliver real equality of access.** Ofcom could require BT to allow its competitors to gain genuinely equal access to its networks. This option would also require BT to commit to behavioural and organisational changes to ensure that its competitors benefited from access to products and processes which were truly equivalent to those offered to BT's own retail businesses.

The large majority of respondents to Ofcom's Phase 1 consultation suggested that Option 2 would be too disruptive and expensive, favouring instead the swift introduction of real equality of access². However, Ofcom has stated that if real equality of access is not delivered, Ofcom will consider an investigation under the Enterprise Act and potential subsequent referral to the Competition Commission.

¹ Information taken from Ofcom's website at http://www.ofcom.org.uk/media_office/latest_news/nr20041118

² Ofcom is proposing that the most effective way to deliver the changes required will be for regulation to address head-on the barriers preventing competitive wholesale access to BT's network.

Events around the world

Headquarters:
The International Chamber of
Commerce,
Untersachsenhausen 10-26,
50667 Cologne, Germany

Global Secretariat:
c/o Ariadne Capital
28 Queen Street
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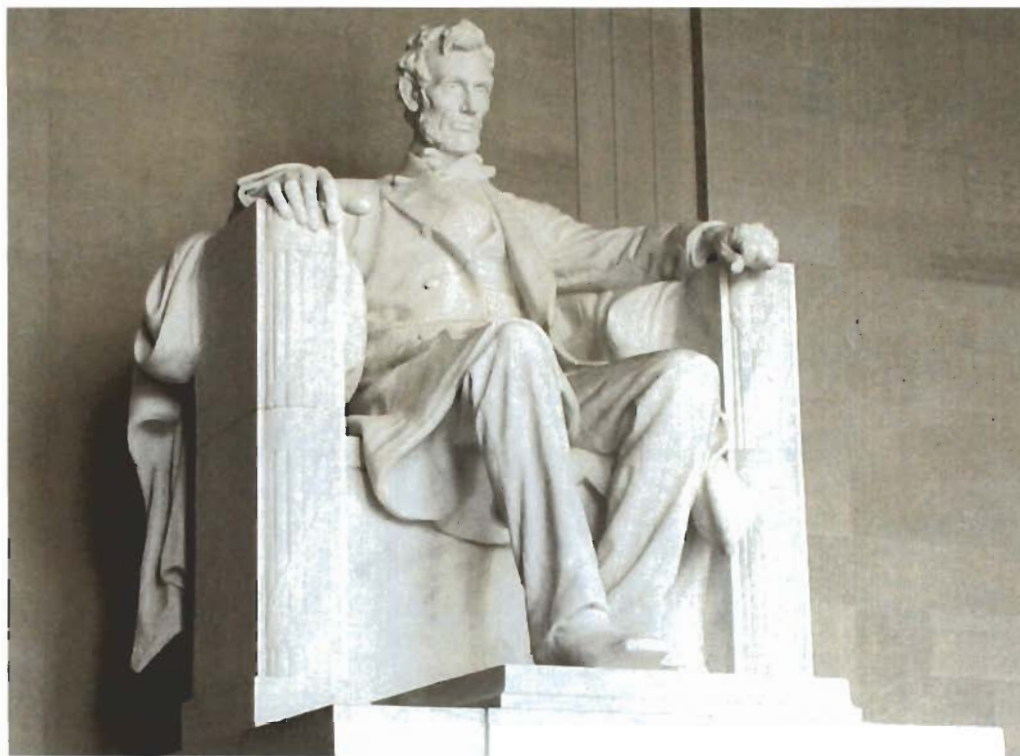
GTWN Power Breakfast at SuperComm

Sponsored by BelgaCom, Equant, and Intelsat

23 June 24, 2004. Washington D.C. The GTWN Power Breakfast met with 80 people strong at SuperCom. Intelsat CEO Conny Kullman gave an inspiring speech on how satellite communications is bringing about the next generation of broadband around the

world. GTWN co-founder and International Youth Forum founder, Compass Rose President Walda Roseman was honored at the breakfast for her contributions to international communications. The GTWN Steering Committee has written to the ITU Secretary

General to commend her on her long-year contributions to the international telecommunications industry. All participants received beautiful and practical telecommunications favors from Equant, arranged by our GTWN Member, Lisa LaBonville.



Mission

The Global Telecom Women's Network (GTWN) exists to promote the perspective of women and their role within the global information and communication industries by providing

- a forum for debate and discussion of key issues;
- promotion of women at all levels;
- networking among women to achieve these goals; and
- role models and mentorship of women within these industries.