



5th Global Symposium for Regulators (Geneva, 2004)

Licensing in an era of convergence

Speeches

This PDF is provided by the International Telecommunication Union (ITU) Library & Archives Service from an officially produced electronic file.

Ce PDF a été élaboré par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'une publication officielle sous forme électronique.

Este documento PDF lo facilita el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un archivo electrónico producido oficialmente.

یجر ی نورکتال فملنم تنخوما ی هو تاطوفحواله تمکتبال قسم ، (ITU) للاتصالات الدولي الاتحاد من مقدمة PDF بنسق النسخة هذه امیرسَّ إعداده.

本PDF版本由国际电信联盟（ITU）图书馆和档案服务室提供。来源为正式出版的电子文件。

Настоящий файл в формате PDF предоставлен библиотечно-архивной службой Международного союза электросвязи (МСЭ) на основе официально созданного электронного файла.



GSR

5th Annual Global Symposium for Regulators
Opening Remarks

Yoshio UTSUMI
Secretary-General
International Telecommunication Union

Geneva, Switzerland - 8-10 December 2005

Ladies & Gentlemen,

It is my pleasure to welcome you to the 5th annual Global Symposium for Regulators (GSR).

The information and communication technologies (or ICT) sector is undergoing a radical transformation, from an industry based on "plain old telephone service" (POTS) to one that provides voice, data and multimedia applications. At the same time, countries around the world are in the process of updating their licensing and regulatory frameworks to address this convergence so as to be better able to promote affordable access to the entire range of communication services, from voice to high-speed Internet access.

It is for this reason that the 2004 edition of *Trends in Telecommunication Reform: Licensing in an Era of Convergence* has been released for this year's GSR. The report focuses on the global trend towards reducing licensing requirements and to adopting converged licensing regimes. This trend will enable service providers to offer any, and all, services using the technology of their choice, in a more competitive market environment.

Because of convergence, the boundaries between different services and technologies are becoming increasingly blurred. In some countries mobile handsets can now deliver live TV, as well as Internet access at speeds of up to 2 Megabits per second. Broadcasting has crossed over into mobile telephony and mobile telephony into wireless broadband access. Gone are the days when a phone was just a phone, and was regulated as a phone. The traditional framework of licensing according to a specific category of services no longer works.

At the same time as convergence is taking hold, we have seen an unprecedented rise in the number of wireless services—all of which require spectrum. Today's wireless services and applications require spectrum management policies that are rooted in modern-day technologies and modern-day markets. At the New Initiatives workshop on Radio-Spectrum Management, held in Geneva in February, we learned that many countries are now making the necessary transition to modern day spectrum management.

At one end of the scale, many countries have started to auction spectrum while a few have taken the bolder step of introducing spectrum trading. At the other end of the scale, more spectrum is being dedicated worldwide to license-exempt use, allowing industry and technology a freer hand in managing spectrum for themselves. These developments pose

many regulatory challenges. For example, how can governments reconcile the reality that they are charging large sums of money for some parts of the spectrum, while giving away other parts free of charge? This problem becomes acute as the services offered over different parts of the spectrum become increasingly substitutable.

The rise of wireless services, for example, gives great hope to developing countries. Many developing countries have already been able to raise substantially the number of users with access to voice telephony, through the adoption of mobile phones and pre-payment cards.. The advent of wireless broadband and Internet technologies, such as Wi-Max and Wi-Bro, lends even more optimism to our quest to bridge the digital divide. If developing countries take up these new wireless Internet services at the same rate that they have embraced wireless voice services, there is every reason to be hopeful for the future. The rise of Internet and broadband access will be further fueled by these new technologies.

But not all market and technology trends are so rosy. Along with increased Internet access comes new problems, such as spam and other forms of Internet fraud. I strongly encourage this community of regulators to work together to develop a multi-pronged attack on this scourge of the Internet. The work begun in the ITU WSIS Thematic Meeting on Countering Spam, held this July under the able leadership of Bob Horton, must continue.

Next year, 2005, will mark the 20th anniversary of the completion of the Maitland Commission Report, entitled "The Missing Link". The world has changed dramatically in those two decades. I remain convinced that establishing an effective regulatory framework remains key to the success of transforming yesterday's telecommunications sector into tomorrow's ICT sector. Effective regulation can help foster investment in the ICT sector, the rollout of innovative new technologies and provides an environment in which consumers can enjoy high-quality services at affordable prices.

Since I joined the ITU, we have worked to respond to the needs of the growing community of regulators. Hosting this meeting on an annual basis is just one example. I believe that this meeting has helped in facilitating an international exchange of views and experiences among regulators.

I wish you every success in your work this week.
Thank you.

ITU Global Symposium: 8th December 2004: Broadband Roll-Out and Spectrum Management: the UK Perspective

David Currie, Ofcom Chairman

Introduction

Good morning. I am most grateful to Hamadoun Touré for giving me the opportunity to address you this morning, in the company of so many distinguished colleagues from regulators around the world, and under the able Chairmanship of FCC Commissioner Abernathy.

The theme of the conference – licensing in the era of convergence – has major resonance in the UK, where Ofcom is a truly converged regulator, with duties across broadcasting, telecommunications and spectrum. We also welcome and fully support the conference's objective to achieve worldwide progress in promoting the development of cost-effective broadband services and internet connectivity in this converging world. In keeping with both objectives, I would like to use my slot this morning to outline to you Ofcom's experience and perspective on regulating for broadband in a converged world, what we are doing now in the UK to facilitate low cost broadband access for those that want it and the challenges we in the UK (and indeed we all as regulators) face going forward, particularly on how we propose to respond to ever-increasing demands for bandwidth via our proposals for future spectrum management and how this relates to the picture internationally.

Broadband: UK Government and Ofcom Objectives

In the UK expanding broadband and making it more competitive has been at the heart of the UK Government's objectives. The UK Prime Minister Tony Blair has also announced that he plans to 'end the digital divide' in the UK and ensure broadband is available to every home that wants it by 2008."

The Communications Act – the statute which governs Ofcom's regulatory duties - provides that Ofcom must have regard to the "desirability of encouraging the availability and use of high speed data transfer services throughout the UK". This has been underlined in Ofcom's annual plan for 2004/5 which emphasised the importance of broadband by having as its aim:

"To promote effective and sustainable competition in the broadband market at both the retail and wholesale level, encouraging investment that will be necessary for continued roll-out and upgrading infrastructure"

Broadband will be a continuing focus for Ofcom in 2005/6.

Broadband in the UK: History

Historically, the UK has benefited from competition from the cable industry which covers 50% of the UK population and many of the early broadband developments were driven by the cable operators. Indeed, until mid 2003 the majority of broadband connections were provided over cable.

Yet uptake was disappointing due to high prices and relatively low speeds. This was partly due to a lack of infrastructure-based competition. Cable coverage and uptake is not as extensive as it is, say, in the United States and also wireless and power-line technologies remain largely unproven. It was also due to the lack of effective wholesale products such as DSL and Local Loop Unbundling (LLU).

Broadband in the UK: The Last 12 Months

However, over the last 12 months the broadband industry in the UK, has begun a positive transformation. The number of broadband connections has almost doubled to 5.3 million (or about 10% of households) by the end of September 2004 and we are adding about 200,000 connections per month.

The entry price of products from the UK's major broadband players has fallen by about 40% and we now have much more diversity in terms of speeds and pricing packages.

Infrastructure Competition/LLU

At Ofcom we have made it clear that we see infrastructure competition as key to competition and innovation and we are now seeing signs of substantial investment into infrastructure-based businesses, and particularly those based on Local Loop Unbundling, although we recognise that its role will be limited to more densely-populated areas in the UK.

Key Local Loop Unbundling prices have been reduced by 70% and Cable & Wireless and ntl are amongst the operators to have announced investment commitments and new LLU-based services on the back of this revitalised LLU. And the processes for LLU are now being rapidly improved with the support of a Telecommunications Adjudicator, whom we appointed in July 2004 to help the operators and the incumbent, BT, to sort out key process issues. Ensuring effective processes is as important, in our view, to the success of LLU as the price. The overall effect of the price reductions, the efforts of the Adjudicator and the commitment of BT and other operators, is that demand will rise to around 5000 lines per day within 12-18 months – a stark contrast to the 16000 lines that have been unbundled in the last 4 years!

DSL coverage has also increased to over 95% and is expected to reach 99.4% by the end of 2005.

Broadband: Future Challenges

We have made major strides in the right direction in the UK. However, we are not complacent and we still see the need for significant further progress. There are significant challenges ahead.

We need to make infrastructure competition a reality through further improving the processes behind Local Loop Unbundling to ensure that investment stimulates another boost in innovation and market growth.

We will continue to encourage new sources of broadband competition to emerge, with a view both to expanding availability, maximising choice for consumers and exerting downward pressure on prices, and also with an eye on the emergence of next generation broadband access services, with speeds of 20 Mbps and above, which cable and DSL have difficulty in delivering.

We are keen to see truly workable voice over internet (VOIP) broadband services emerge, though we recognise that there are complex legal and consumer protection issues to be resolved.

We also want to encourage greater competition between fixed and mobile telephone service providers for voice and data services. We have a strong market structure in the UK with five competing operators and several more virtual network operators. 3G mobile services in the UK reached a significant milestone in the last quarter with 3UK announcing that it had over 1 million subscribers. In almost all aspects, the mobile sector in the UK displays hallmarks of a vigorously competitive market. Its future evolution will be conditioned by developments in wireless spectrum use and availability, about which I will say more shortly.

We need to facilitate new entry into the market by broadband fixed wireless providers to take advantage of WiMax and higher frequency wireless technologies. Though these too will be subject to spectrum availability issues.

Digital television too, will have a role to play in contributing to the range of potential sources of broadband competition in the UK. Penetration of digital TV continues to grow rapidly with more than 55% of UK households equipped to receive digital service. There are also signs of broadband TV starting to grow, albeit from a low base. Homechoice now claims to have a broadband TV network that can reach one and a quarter million people in London, with further expansion planned, while BT, Wanadoo and ntl also have TV over DSL services planned.

We shall also work with the UK Government to ensure that a digital divide is not created – for instance, for disadvantaged groups such as the poor and elderly.

The Future: Increasing Demand for Radio Spectrum

Many of the new sources of competition in communications and broadband services rely on radio. This is a global phenomenon. Wireless networks can be rolled out faster than fixed infrastructure and provide innovative communications solutions for developing and developed countries alike. Consumers increasingly desire the freedom to communicate wirelessly.

Radio spectrum is an essential raw material for these developments and demand is rising. In some countries, this has reached the point where spectrum managers face pressing difficulties in making enough spectrum available to meet demand, especially in frequencies most suitable for mobile broadband between about 1 and 5 GHz.

As regulators, we are aware of the growing challenges in spectrum management. Demand for spectrum is increasing; the pace of technological innovation, particularly for broadband, is accelerating; and the future of convergence is uncertain. This situation poses a severe challenge to the historical model of spectrum management where spectrum managers specify in detail how spectrum should be used and the technologies that should be applied.

Developments such as ultra-wideband promise much, but it would be premature to conclude that they will solve all spectrum management problems. For example, there are concerns about its potential to interfere with other services. We are following with interest developments elsewhere in the world where UWB has been deployed and looking hard at the conditions under which it can co-exist with other services.

The model of reserving spectrum exclusively for a given technology, or even family of technologies, is outmoded. It worked well in the early days of mobile telephony when spectrum was plentiful, technical change was relatively slow and choices were fewer. But the world looks very different now. It is essential that processes for making spectrum available keep pace with the dynamic changes in the communications sector. We need to move beyond an old-fashioned central planning process if we are to gain the maximum economic and social benefit from spectrum.

This means taking full advantage of the strengths of market mechanisms to distribute spectrum to the most valuable use and user. Market mechanisms cannot totally replace regulation but they are a powerful supplement.

Ofcom's Spectrum Framework Review

The Spectrum Framework Review that Ofcom recently published sets out our vision of how to meet this challenge. We believe:

- spectrum should be free of technology, policy and usage constraints as far as possible ;
- it should be simple and transparent for licence holders to change the ownership and use of spectrum;
- rights of spectrum users should be clearly defined and users should feel comfortable that they will not be changed without good cause.

We aim to use a balanced range of spectrum management tools with a strong emphasis on market mechanisms, such as trading and auctions, within a liberalised, technology-neutral framework that allows spectrum users maximum flexibility to innovate and encouragement to invest.

I appreciate that national circumstances and priorities differ. The UK with a relatively small land mass, many centres of population and extremely intensive use of radio has particular needs. The situation differs from country to country. But Ofcom's approach may be of interest to others facing similar circumstances and we welcome opportunities such as this to exchange views and experience.

Spectrum: The International Framework

I would like to turn now to the international framework.

Radio waves do not stop at national boundaries. Frequency allocation cannot be conducted on a purely national basis. This is why we need the ITU and the Radio Regulations. The challenges that I have described at the national level also apply internationally. This is why I am an enthusiastic advocate of making international harmonisation as flexible and dynamic as possible.

The international framework operates at two main levels. Globally, through the ITU Radio Regulations and regionally, for example through the European Union and the Conference of European Posts and Telecommunications administrations.

There is much work going on in the ITU to consider whether the Radio Regulations need to be made more flexible and technology-neutral. I pay tribute in particular to the interest by Secretary-General Utsumi, who convened an extremely interesting and useful workshop on radio spectrum management for a converging world in

February 2004 as part of the ITU New Initiatives Programme. This was timely and I applaud his initiative.

The Radio Regulations are already fairly flexible. Radio Regulation 4.4 allows non-primary services to operate on a no interference, no protection basis. Yet perhaps this should be broadened to extend co-primary status to any service that creates no more interference than the primary service in a band and that requires no greater protection from interference. This would make the Regulations more truly technology-neutral and better suited to the challenges that lie ahead.

Spectrum: European Markets

Turning to the regional level, European national markets and land areas are relatively small. So economies of scale, consumers' ability to use their equipment across national frontiers and cross-border coordination to avoid interference suggest that a degree of harmonisation is beneficial.

Regional harmonisation in Europe has achieved a notable success with GSM. Yet there have also been several cases in which harmonised services have been unsuccessful or have disappeared without trace leaving spectrum allocated to them lying unused. We can ill-afford this, especially in parts of the radio spectrum that are in greatest demand. We need to make harmonisation work better. This means making it more flexible, dynamic and technology-neutral.

3G Expansion Band

The band at 2.6 GHz that has been reserved in Europe for IMT-2000 technology – the so-called 3G Expansion Band - is a prime example of the need for greater flexibility. The decision on what to do with the Band is one of the most momentous Europe will make in the Information and Communications Technology field for the next 10 years.

The block is not just a minor incremental enhancement. It amounts to 190 MHz of spectrum. In spectrum management terms, this is a massive amount. It would more than double the bandwidth currently devoted to 3G and is considerably more than will be released when analogue television is switched off.

The current proposal is to release it for the exclusive use of IMT-2000 technology. There is nothing wrong in making spectrum available for future expansion of 3G. The flaw in the proposal is that it reserves all this spectrum *exclusively* for IMT-2000. This gambles that no other technology will emerge that could make better use of some or all of the spectrum.

The answer is to allow other technologies in the Band provided that they can co-exist with IMT-2000 without causing interference. The UK strongly advocates such an approach in this critically important band.

I have no reason to doubt the future prospects or value of 3G. But a more technology-neutral approach will guarantee that IMT-2000 can access spectrum to expand while making spectrum available on a timely basis for higher-value applications should they emerge at some point in the future. This is an example of how the international framework can be made more flexible while retaining the benefits of harmonisation.

Conclusion

I hope that this has given you a flavour and understanding of the UK environment which will be of benefit to your discussions during the rest of the Symposium. On broadband in the UK we have made a relatively slow start, but have made substantial progress in the last 12 months. Significant challenges remain ahead, with the future management of spectrum one of the most significant. I very much hope that we can work together and share ideas, both at this Symposium and in the future.

2426 words: about 14 minutes at 180 wpm

ITU
GLOBAL SYMPOSIUM FOR REGULATORS

Geneva, Switzerland, 8 – 10 December 2004

Opening ceremony

The role of the regulator

Speech by Mr. Marc Furrer, Director General of the Swiss
Federal Office of Communications (OFCOM)
on the occasion of Regulator's Day, December 8, 2004

(the spoken word takes precedence)

Secretary General,
Mr. Touré,
Ladies and Gentleman,
Dear Colleagues,

Welcome and good morning!

Being the head of the Swiss Regulatory body, it is always a pleasure to welcome you here in Geneva on Swiss soil. Though I know that you did not come just to pay us a visit in our country, we still appreciate the fact that we can be the host country for so many international events here in Geneva.

The meeting of the world's regulators in Geneva at the beginning of December is a noble and important tradition – and I congratulate and thank the ITU for this effort.

Many people ask me why I continue to find the telecom market and telecom policy so interesting. Do you know what answer I give to these people? It is because you never know what is coming next in this market. Nothing is predictable. Who knows which ICT technology will have what effect on the market? How did we all get it so wrong with our prognoses of the 3rd mobile generation, how badly did we predict the development of powerline communications and how much do we really know about the changes that Voice over IP will bring? So we don't even know the problems which we will face in four or five years, let alone the solutions. We cannot know the regulatory challenges of the future. That is exciting, isn't it?

My approach towards regulation is therefore that we need an open regulatory framework for the telecom market. We need some principles, which we have to follow strictly way. In addition, we should create this open framework – which is adaptable in order to accommodate new technologies and which is technology neutral. Only in this way can we respond in a flexible and rapid manner to the needs of the market. Or let me use an analogy from the animal kingdom. The development of the technologies and of the market is like the hare – fast and impetuous. The regulators, in contrast, are a bit like a tortoise. So it is difficult to make rules for a game between the hare and the tortoise. That is the challenge for any regulatory policy.

And we regulators have to live with the fact that in the future we will be able to regulate and control less. Voice over IP, for example, is a communication platform which does not permit a great deal of regulation.

So there are three consequences for us regulators: Firstly, not to give up, but to concentrate our regulatory activity on the things that we can and should regulate. This automatically leads to lighter regulation.

What does that mean: In terms of spectrum management we must give the operators the possibility of buying or selling frequencies if they have a requirement or a surplus. Of course the spectrum authority must set clear guidelines regarding this kind of spectrum trading to avoid chaos and prevent speculation. The bands which are open and the approved applications must be clearly defined. It would, for example, make sense if those who bought WLL frequencies could now sell these to those who want to implement WiMax.

Second point: Licenses.

We should only license if it is really necessary. Licensing should certainly not simply be a method of raising funds for the ministry of finance. And licensing should not be an unnecessary obstacle for the market. But licensing will still be necessary for some use of the spectrum and the universal service. With this in place, a light regime with an obligation to register is sufficient.

Thirdly we have to enable new technologies and new platforms. We have to actively clear all the obstacles. In this way we increase competition and as a result we enable innovation. To take the example of Voice over IP again, we must get rid of the regulatory hurdles so that Voice over IP can have a chance on our market. We should not try to protect the classic telecom operator from this new competition. We thereby create competition between infrastructures, technologies and also between services. Our main consideration should always be the needs of the customer: Concerning transparency, unfair business practices and overreaching, and security. Although we do not know much about the future in the ICT market, one thing is certain: The regulators of the future must increasingly become enablers and facilitators of an open market. But they should be more and more aware of the limited possibilities which regulators are faced with concerning new technologies.

Having said all that, I am aware that many of my regulator colleagues are faced with a completely different situation to that in say Great Britain or Switzerland. I know that more than half of the Earth's population has no telephone or even access to a telephone. Almost a third of the people on the planet have never used a telephone. For all these people the discussions about Voice over IP, spectrum trading and WiMax are rather irrelevant. In the final analysis, all they want is an infrastructure. So it is our duty, especially those of us here in Europe, to help find solutions – meaning the financial resources – so that everybody on this planet has access to information, and therefore to knowledge. I hope that in the discussions at this symposium here in Geneva we also respect precisely these problems of development and cooperation.

Exactly a year ago, the first phase of the WSIS was held here in Geneva during which the topic of financing the ICT infrastructure was hotly debated. It is a real challenge and we are far from solutions! Monitoring the preparations for Tunis, the second phase of the WSIS, I have not been able to see significant progress towards solutions in this field since Geneva. I call upon all institutions, but particularly the United Nations, UNDP, ITU-D and the World Bank to improve their efforts and to make substantial proposals.

We have enough declarations, funds and political plans, but what these countries really need are concrete projects so that an efficient telecom infrastructure, and therefore a telecom market, can be constructed.

Only by enabling the financing of the infrastructure can a market with investment potential be created.

So let us not forget: The task for us regulators is not only regulating the network, but also finding ways for everybody to access ICT technology.

A technology which is the instrument for an inclusive and respectful information society!

Thank you for your attention.

**Opening Remarks of Kathleen Q. Abernathy
Commissioner, Federal Communications Commission, USA
Global Symposium for Regulators
December 8, 2004**

Good morning, distinguished colleagues and guests. What a pleasure to see so many of again at this, my third GSR.

I am extremely honored to have been selected to chair the GSR this year. It is a tremendous privilege and I will work hard to justify your faith in me. I want to thank Mr. Utsumi, ITU Secretary General, and Mr. Tour?, Director of the ITU's Telecommunications Development Bureau, for their leadership and their vision in establishing this symposium. By providing this opportunity for world telecom regulators to listen to, and learn from one another, Messrs. Utsumi and Tour? are demonstrating yet again that *shared* wisdom is the *best* wisdom. I look forward to open, interesting, and hopefully lively discussions over the next three days on three regulatory issues with major economic and social implications: how to license telecommunications services in

an era of convergence, how to combat spam, and how to promote cost-effective access to broadband and internet connectivity.

The GSR is a unique and extremely practical forum for these discussions. From its beginnings five years ago as an experimental way to bring together regulators from around the globe, it has grown to include government and private sector attendees from every part of the world. I believe the GSR's success derives from the fact that it provides regulators with the opportunity to hold discussions with both private-sector interests *and* with fellow regulators. This maximizes the opportunity for careful consideration and vigorous debates.

This opportunity could not be more timely. In today's world, despite all the economic and social issues that individually distinguish each of our countries, *all of us* are grappling with the same basic problems of how to improve access to telecommunications services for our citizens and how best to structure a regulatory regime that responds to the changing nature

of technology. Moreover, how we respond to these challenges can impact people far beyond the borders of our own countries.

Thus, notwithstanding our differing political and social philosophies and traditions, in the communications arena there is much *uniting* us. The GSR offers us a place to share our experiences and establish common ground on important issues of mutual concern and global impact.

This year's GSR, with its focus on Licensing in an Era of Convergence, is particularly timely. In my discussions with other regulators I have found that one common theme is the search for a regulatory scheme that reflects the realities of convergence and enables consumers to benefit from the new technologies. Over the next three days I am looking forward to sharing ideas and experiences on what licensing alternatives make sense for converging digital technologies, what regulatory policies best promote cost-effective access to broadband technologies, and what measures can most effectively counteract spam.

The final output from these discussions, will be Guidelines on Best Practices for Promoting Low Cost Access to Broadband and Internet Connectivity. I want to thank all of you who have already contributed to this document and I encourage everyone else to engage in the debate over these guidelines throughout this Conference so we can all embrace the final document.

One new addition to this year's conference is a technology demonstration. I encourage all of you to spend some time talking to the private sector companies that are participating in this demonstration. This is a unique opportunity to learn more about the new technologies that are delivering broadband and internet services to consumers all over the world. Please visit with the companies and individuals who are participating in the demonstrations and ask them questions, learn more about their technology. The representative companies are Cisco, Ericsson, Midas Communications Technologies, Intel, Intrado, the Massachusetts Institute of Technology, Nextnet Wireless, Nortel Networks, Qualcomm, Texas Instruments, Telecom Data Egypt,

and Vivato. I recognize that not every technology is an ideal match for every country but this demonstration offers you the opportunity to learn more about what's out there and to factor that information into your regulatory decisions.

And now I'd like to talk briefly about the challenges and opportunities all of us face in this era of convergence.

Technological advancements have dramatically changed the telecommunications world by contradicting our prior beliefs that the economics of communications required a monopoly service provider. Although a true statement in the past, technological innovation and economic competition now allow for multiple providers using different technologies. And this trend has been accelerating, thanks in no small part to the digital conversion.

As mentioned by Secretary Utsumi, digital technology has also profoundly altered the nature of the service providers. Formerly separate voice, video and data services now combine on a single platform. In addition, the creation of entirely new technologies such as wi-fi, wi-max, and voice over internet

protocol (many of which are being demonstrated at the technology demonstration) force us to re-examine our traditional approach to regulation. And if our existing regulatory and licensing policies do not catch up with and reflect this new technological reality, we run the very real risk of limiting the full range of the economic, educational, and social advances these new applications are capable of delivering to our countries.

It's not surprising that existing law and established mind-sets lead us to force *new technologies* to conform to old ideas about monopoly service providers. But I think it is essential that we reverse this equation and instead make *old regulations* conform to *new technologies*.

Perhaps the most fundamental, and lasting revision to be made in this age of digital convergence is to abolish the distinct regulatory categories that are based on the identity of the provider and that so many of our regulatory schemes encourage or require. In a world where different platforms are used to provide functionally equivalent telecommunications services, it is

important to determine how to harmonize distinct regulatory frameworks and licensing schemes. We need to develop more flexible regulatory structures that are focused on the competitive options and the fulfillment of core social policy objectives, and less bound up with arcane service categories or labels.

I recognize how formidable this challenge is because many of us are constrained by legal frameworks that were written well before this technological explosion. But the good news is that new technologies provide regulators with the perfect opportunity to rethink how we regulate and promote competitive markets. To the extent that there are multiple providers competing for customers, we can worry less about the potential for anti-competitive conduct by incumbent service providers.

When it comes to the new services offered by new providers, I propose that we, as regulators, consider adopting a presumption against routinely extending our legacy rules. Those legacy rules were written for incumbent-dominated markets that were regarded as “natural monopolies” and therefore they were primarily focused

on price regulation. But this doesn't mean I'm suggesting that we refrain from any and *all* regulation. Our challenge is to determine what kind of regulatory oversight is valuable in this new era. For example, there will always be certain core social and policy goals that even the most competitive market is unlikely to deliver, such as universal access, access to emergency services, and national security concerns. Assuming a digitally-driven, competitive market, we need to accurately determine which of these concerns can *only* be adequately addressed by regulation.

This movement away from traditional economic regulation undoubtedly will translate into a shift in responsibility for regulators. While becoming *less* involved in price regulation, regulators are likely to become *more* active in two related areas – enforcement and consumer education.

I've seen first hand how important enforcement can be because failure to enforce rules sends the wrong signal to the market. It tells companies that they can engage in anti-competitive behavior or other unlawful conduct with impunity. So we need to

be strong and consistent and write our regulations with enforcement in mind.

In addition to a focus on enforcement, I believe it is also important for regulators to improve consumer outreach and education efforts. Competition delivers tremendous benefits, but it also can confuse consumers as they are faced with unprecedented choices. Today with the increased availability of service and technology options, consumers can be overwhelmed and underinformed.

Regulators play a vital role in informing consumers of their rights and opportunities so that they can better navigate this new marketplace. And education is essential to our ability to regulate in the public interest. For example, just in the past several years, the FCC has engaged in consumer education initiatives including issuing newsletters explaining the effect of our rules on consumers, establishing consumer hotlines for questions and complaints, meeting regularly with consumer groups, and similar endeavors.

But these are just a few of the challenges all of us face as we race to catch up with technology. I am looking forward to our discussions over the next several days on how to address these and other issues raised by convergence. There is no doubt that the issues surrounding licensing in the era of convergence and how to promote cost effective access to broadband connectivity are key to every country's economic and social development. We cannot force new technological innovations into old regulatory categories. To secure the best economic, educational, and social advantages that the wonders of new technology hold out to us, we must craft a new regulatory framework.

I am particularly privileged and delighted to have the opportunity to chair GSR 2004 at this critical juncture, and I look forward to discussing these important issues with you throughout this week's meeting and in the future.

Thank you.

**Closing Remarks of FCC Commissioner Kathleen Q.
Abernathy
Global Symposium for Regulators
Geneva, Switzerland
December 10, 2004**

Over the past five years, we have had the opportunity to gather together at the Global Symposium for Regulators to exchange opinions and viewpoints on the most pressing regulatory issues of the day. This meeting is unique. There is no other event where we can engage in a dialogue with our peers – people who have to address the very same issues in their country that we do in ours. In the decisions we make, we are each driven by the same goal – to ensure that we have the best quality and most innovative telecommunications services available to our citizens at reasonable rates. We can be honest and supportive with each other, because we have faced – or will face – similar challenges as we chart our regulator path for the future.

That's what I would like to focus on, briefly, at the close of these remarkable days of discussion – the future. We have talked

about an information and communications technology sector that is evolving and “converging.” And we have talked about the exciting developments in broadband network technologies that will enable our societies to reach for greater connectivity and capacity to achieve the goals of the Information Society. Now I’d like to talk about ways that we, as regulators, can help to harness and drive these trends that we have talked about. I believe that it’s important to focus on concrete steps, many of which are spelled out in the groundbreaking document we just approved, the *Best Practice Guidelines for the Promotion of Low-Cost Broadband and Internet Connectivity*.

Evolution and Convergence

There is no doubt that these guidelines can be timely and useful tools to build toward the future—because information and communications technologies are evolving rapidly. The era when “plain old telephone service” defined a country’s telecommunications development is rapidly receding. While voice service remains crucial to the demand for telecommunications

services, it is increasingly being delivered using networks that are at least partially packet-switched. Through Voice over IP technology, voice traffic can be transmitted at lower cost and greater efficiency – and delivered in combination with other life-enhancing digital data and video services. This is clearly where competition in landline voice service is heading and as a result it creates regulatory challenges for all of us.

The use of the Internet and other packet-switched networks is steadily growing. Of the nearly 700 million Internet users recorded globally last year, 332 million had been added in just three years since the beginning of the decade. Moreover, of those new users added in this millennium, two-thirds were in developing economies. Clearly, the take-up of Internet services is not only strong, but broad-based, as well.

Perhaps an even more fundamental evolution can be found in the global explosion of wireless services. There are now more than 1.4 billion mobile service customers around the world – one out of every five people on our planet. Mobile service is growing the

fastest in developing economies such as China and India, where market potential is being tapped in earnest.

What's next on the horizon? Potentially, the mobile boom will pave the way for the nexus of mobile capabilities with packet-switched data services and applications. This is an especially attractive option for the roughly 200 million people around the world who have a mobile phone, but no landline service.

Meanwhile, communications and information technologies are converging. As we have seen this week, there are several aspects of what we call "convergence." Previously distinct networks and transmission platforms – such as landline and mobile telephone networks, cable TV systems and satellites – can be used to provide a full range of voice, data and video offerings.

Previously separate market segments, such as mobile and land-line telephony, are merging into consolidated markets for substitutable services. And companies from previously separate industries are *literally* converging, through mergers and acquisitions, to form wide-ranging media and communications market players.

The benefit to consumers is that convergence increasingly allows greater competition among all kinds of different providers: incumbent telephone companies, ISPs, cable TV system operators, direct-to-home satellite providers – even electric power utilities. Through digital transmission and what I call “EoIP” – *everything* over IP – all of these types of providers can enter each others’ markets, where they will be forced to lower prices, offer innovative service packages and pioneer new products and services in order to attract greater market share. The result will benefit for customers of all income scales.

Broadband Is the Key

But let’s resist the temptation to get ahead of ourselves. We all know that simply identifying these promising trends does not make them a reality in our own countries. This is true for developed and developing economies alike. To a greater or lesser extent, we *all* face two major challenges in providing an environment for the flourishing of digital ICTs:

1. Providing incentives for investment in broadband networks,
and
2. Adjusting our regulatory frameworks to accommodate the
broadband revolution.

Broadband networks are the key to maximizing the promise of an evolving and converging ICT sector. Without the bandwidth and throughput of broadband networks, multimedia service packages and e-government applications remain only a vision of where we would like to be.

We all recognize that broadband networks have the power to transform our societies. This truth was brought home to me earlier this year when I traveled to Alaska to visit a village above the Arctic Circle, where the residents have incorporated DSL and wireless broadband services into efforts to improve their daily lives. Using these broadband technologies, a consortium established links to schools, health clinics and many private homes. It was vivid proof of how broadband connections can erase

distances, dissolve geographic isolation, link citizens to government services and energize local economies.

Similar broadband rollouts are being pioneered all over the world, as we have heard in our discussions this week.

Governments from Bhutan and India to Latin America have in recent years experimented with broadband network solutions – many of them wireless – to overcome distance and isolation by linking villages and rural areas to national networks. There is increasing evidence that broadband applications, such as agricultural extension, tele-medicine and distance-education, may be instrumental in appealing to rural constituencies and providing a customer base for sustainable business operations.

What makes all this possible is the advent of new, low-cost broadband technologies. As our discussions this week have indicated, there are more and more options for linking communities and individuals to each other and to the wider global community. In many nations, travelers and residents are by now becoming familiar with the use of Wi-Fi hotspots that provide

broadband wireless Internet access, allowing individuals to send and receive email or use VoIP services, all over the world.

Lighter Regulation and Flexibility

These technologies – and many others that are sure to follow – can revolutionize our societies and help to close the “broadband divide” that exists within and among our countries. But their effects will be stunted or ephemeral if licensing and regulatory frameworks impose artificial barriers and disincentives to investment. So it is up to us to adjust, alter or reform our regulatory codes, wherever possible, to dismantle unnecessary Rules that may have been appropriate in traditional markets emerging from monopoly, but which may stifle innovations and competitions in a converged environment.

So that brings me to our best practices and to all that was accomplished the past few days. We, all of you, put aside economic, geographic and political differences to work for the good of all our citizens. As we go back to our countries these guidelines can be signposts – or perhaps lighthouses – marking the

way forward in the rapidly evolving broadband era. In broad terms, they remind us to keep in mind our national and regional policy goals; to prepare the ground for competition and capital investment; to ensure fair and reasonable access to broadband networks, including the Internet; to reassess our regulatory structures in light of convergence; and to adopt technology-neutral policies that do not favor one technology or market segment over another.

I want to congratulate all of you and thank all of you for the time, effort and thought that went into preparing this forward-looking document. I believe it comes out of the finest tradition of guidance from the GSR to our global family of regulators. It compliments and builds on efforts we have made in previous years, including the *Best Practice Guidelines for Universal Access*, enacted a year ago.

The *Broadband and Internet Connectivity Guidelines* we have embraced here in Geneva largely speak for themselves. They are pro-active, pro-competitive and reflect the realities we face

daily as regulators. I want to emphasize a handful of the guidelines, however, because they point to the need for us to involve all segments of our societies in supporting broadband development.

First, we recommend that the promotion of access to low-cost broadband interconnectivity encompass all levels – from identifying local, “grass-roots” needs in our communities to cultivating support at the highest levels of government. In this recommendation, we are making clear that the broadband revolution is not an isolated project of each country’s communications ministry or regulatory agency. It must be an integrated process, beginning with the authentic identification of community needs and ending with a full mobilization of government and non-governmental organizations.

Second, we encourage regulators to work with all stakeholders in partnerships, to promote broadband development. This is further recognition that our evolving, liberalized ICT sectors are increasingly market driven – but at the same time

market forces can work in tandem with government policy to deliver outcomes in the public interest. Again, it is important to emphasize that each stakeholder has a role in broadband deployment, and it is on all our interests to open new market and offer services to new customers.

Finally, we properly recognize that, in the end, the objective of regulation – and of promoting the potential of broadband – is to improve the lives of our citizens. For that reason, we urge each other to educate and inform consumers about the new services that will be available to them through broadband networks and digital services. As we work to close the broadband access gap, we have to ensure that our citizens are empowered with the skills they need to make full use of multimedia and computing applications that will be available to them. This will build communities of users and stimulate the kind of demand that will sustain broadband and IP-enable services in all kinds of localities.

Conclusion

It has been my honor to chair the GSR this year and my privilege to work with all of you. Moreover, it has been my joy to learn from you and to share what I have learned so far in my tenure as a public servant. As I said at the beginning of these remarks, perhaps only we, as colleagues, know the full scope of the burdens and responsibilities we share as telecommunications regulators. But then perhaps only we -- through the power of our determination and the wealth of our common knowledge -- can reinvigorate our commitment to excellence in leading our countries to realize the full potential of these communications technologies that so amaze us -- and the world. And that means we must continue to support each as we all face challenges back home. Those of you just starting out on the regulatory path, we are here to help with training advice, and technical support. Those of you who are facing challenges to your independent authority -- let us know -- let the BDT know and we will see what we can do to help. If we do not support one another, who will?

It is my hope that your faith in the potential good we can achieve together stays with you as you leave Geneva and head back to your home countries. If it does, then in my opinion, the broadband revolution has not only begun, it is well on its way to being won. Thank you and Godspeed to your homes and families.