Consolidated INTUG Response to European Commission consultations on Regulatory Framework Review, Internet Speed post-2020, and Roaming Implementation

Consultation on European Commission Consultations on
Review of the Regulatory Framework,
Internet Speed post-2020, and Roaming Regulation Implementation
Response from the International Telecommunications Users Group (INTUG)

Introduction

INTUG is pleased to respond to these three separate, but parallel and closely linked, consultations. This submission is provided as a more effective way of conveying business users' views than by completion of the on-line questionnaires.

The International Telecommunications Users Group (INTUG) represents the interests of business users of telecommunications globally. These include some of the world's largest financial institutions, car manufacturers, pharmaceutical companies, fast moving consumer goods enterprises, and retail and distribution companies. They also include small and medium enterprises, which are increasingly dependent on telecommunications services.

Creation of an open Digital Single Market is essential for the future growth of the EU economy. Digital services enable economic growth, improve social welfare, create value, and support a more connected world with connected citizens and businesses.

In the public sector, connectivity through shared broadband and mobile infrastructures provide benefits in e-education, e-health, e-transport, smart cities and buildings, security, energy efficiency and e-government interacting with citizens.

In the private sector it provides an environment for investment and innovation in on-line business processes which can operate seamlessly throughout the EU and beyond. This sector is increasingly based on a growing cohort of SMEs emerging from innovative start-ups, which can be engines of growth by leveraging the power of the Digital Single Market beyond their home Member State.

The prerequisites for building this digital ecosystem are universal access to very high speed fixed and wireless network services, available on an open and competitive basis across national borders, consistency, standardisation and harmonisation between Member States with minimised and collective administrative procedures, and a Regulatory Framework and outputs which focuses on optimising the overall economy rather than just the ICT sector or networking subsets of the sector. This implies that impact analysis must address the whole economy rather than just one dimension.

This submission provides specific responses to the three consultations individually, followed by a general summary of business user requirements for a Digital Single Market, supported by specific issues, which have been identified as the highest priority concerns of business users.

The following pages provide INTUG's submission on the following consultations:
- Review of the Regulatory Framework
- Internet speed post 2020

- Implementation of the Roaming Regulation
- Business User Requirements for a Digital Single Market

1 Review of the Regulatory Framework

The Commission asks respondents for input on five key challenges: (i) Network access regulation (ii) Spectrum Management (iii) Communications Services (iv) Universal Service (v) Governance

1.1 Network Access Regulation

Business Users are more interested in services and service-based competition than with underlying technology and infrastructure-based competition. As a general observation, users would encourage infrastructure sharing as much as possible without loss of resilience or integrity. This maximizes wireless coverage for all users, and reduces overall capital investment requirements for both fixed and mobile networks. This sharing philosophy extends to providing indoor and venue coverage, where it is neither practical nor desirable for all infrastructure operators to provide local access.

It is essential that, contrary to the demands of some operator groups and representatives, the open principle of equivalence of input for wholesale broadband access is preserved, with more consistent definition of standard reference offers, strict observation of accounting principles and transparency. There should be no scope for discriminatory "negotiation" of local access provision.

1.2 Spectrum Management

In the continuing absence of a single market for mobile communications within the EU, and with no prospect of establishing such an arrangement, the economic damage of consequent inefficiencies must be addressed urgently. The 39 operators who currently serve the EU Member States provide a fragmented and dysfunctional arrangement.

Business users require pan-EU mobile communications service offerings, which can be provided competitively by several international mobile operators. As a feasible alternative, they require shared access coverage, consistent spectrum allocation of frequencies, and a consistent economic environment in which variations between Member States are not skewed by radically different approaches to spectrum allocation, licence costs and licence terms and conditions.

The current situation hinders roll out of on-line business processes using mobile services on a pan-EU basis consistently, and blocks roll out of applications, which some companies have already implemented across the US. Complete elimination of international roaming charges, reduction and harmonisation of mobile termination rates, and a standard approach to indoor and within venue coverage, based on shared infrastructure, are just some of the necessary components of a solution.

1.3 Communication Services

The need for pan-EU communications services has been highlighted by INTUG in many previous submissions to the European Commission, dating back to 2007, when INTUG co-operated with other organisations to analyse the potential economic benefits, which they would generate. Since

the report was completed, it has become clear that additional benefits would accrue from improved support for SME participation in Extended Supply Chains across all industries.

In Relevant Market reviews and in economic impact analysis, it is essential that the overall impact on the EU Economy is assessed, rather than just the impact on the ICT or the Telecommunications sector alone, or indeed a subset of it such as Mobile services. The objective must be to regulate for the big picture, not a small part of the whole.

In the future, communications services will become increasingly technology independent and business users will therefore become increasingly technology agnostic, as converged offerings bundle together fixed and mobile and wireless technologies. The Regulatory Framework must be agile enough to handle a shift towards greater emphasis on service-based competition.

1.4   Universal Service

The original concept of a Universal Service Obligation, usually borne by the incumbent operator, was limited to voice telephony over a fixed copper-based connection. This has been superseded by successive generations of technology innovation, including the widespread adoption of wireless and mobile technologies. In some countries, these have been used as substitutes to meet the USO.

At the same time, the access speeds required for data have increased by several orders of magnitude to keep pace with increasing sophistication in applications and in the capability of devices. Radical reassessment of the relevance and scope of Universal Service is now needed.

Broadband access is rapidly becoming an indispensible tool for participation in society for all, regardless of location, social class, wealth, educational achievement or even aptitude and desire. If the applications and processes by which people are governed and administered at national and local level are to leverage the benefits of digital technology fully, the old legacy processes must be totally replaced. This can only happen if every person (and an increasing number of "things") has guaranteed access wherever they are, and at a speed which enables use of services with appropriate speed and functionality.

More realistic (albeit more challenging) plans can only be achieved by accepting that the fixed and wireless access networks will move towards becoming shared utilities, like electricity, gas, water, roads and rail tracks. Provision must then be monitored carefully by independent regulators in terms of quality, function and price. Business models for all operators must also shift to being more like service providers, competing for added value.

1.5   Institutional set-up and governance

The creation of BEREC and the existing governance mechanisms have made some useful progress in achieving greater consistency and harmonization, but more could and would be achieved with greater authority than the current processes, such as Article 7 procedures and the need for an NRA to take utmost account of findings. National independence in the area of spectrum is just one example where a Digital Single Market continues to be obstructed by some Member States. The establishment of an EU Regulatory Authority with EU-wide powers may be a step too far at this stage, but other approaches are compromises seeking to get a bit closer to the strategic objectives.

The Review should examine how faster and more effective tools can be provided to BEREC and the Commission to achieve greater influence over national outcomes.

The newly established Relevant Market for specialized business services is welcomed by business users. It is, however, too early to judge whether it will deliver greater competition and choice for business users across the EU. The market is still subject to national market reviews, and there is still no mechanism for analysing the market for international services, and for judging whether this will ever evolve towards sustainable competition without regulatory assistance. In practice there is no market at all for international mobile services, and the market for international fixed services is still at risk from Member State interpretation of the requirement to offer reference wholesale broadband access products and services in a non-discriminatory manner.

In the business market, deregulation at sub-national level causes problems for business users seeking competitive bids for national networks, when part of the geography required is in a deregulated area. This leads to problems for service providers in securing wholesale deals.

2   Internet Speed post-2020

Current targets for broadband in terms of percentage coverage and take-up are now embarrassingly inadequate, prompted by doubts about demand, and anxiety about wasted infrastructure investment. Bold steps are needed to ensure inadequate access capability does not hinder reaching economic goals. 100% connectivity of the EU at 100 Mbps by 2020, and at least 1 Gbps by 2025 for fixed networks, should be the plan (not the target) with similar plans for wireless access 3-5 years later, and a recognition that in some cases the wireless access will deliver the fixed requirement.

3   Roaming Regulation Implementation

Business users welcomed the decision to eliminate Internal Mobile Roaming surcharges throughout the EU, although there was disappointment that the originally agreed target date of 2015 slipped to mid 2017 (given that the problem was first identified as long ago as 1998). It is essential that this vital step towards removing such a damaging barrier to cross-border trade is actually achieved without further delay. The three elements of transposition identified in the consultation merit separate comment as each raise user concerns.

3.1   Wholesale Roaming Review

Successful implementation of the Roaming Regulation in all Member States will require significant changes to the wholesale roaming structures with further reduced price caps, and greater alignment with mobile termination rates, which must be also reduced much further in some Member States and harmonised to achieve greater consistency. Without these two steps, it will maintain difficulties in the other two areas identified in the consultation.

3.2   Fair Use Rules

This qualification, which arises due to the scale of price differences across the EU, represents a potential loophole enabling exploitation to limit the extent to which roaming surcharges are eliminated. The rules should not limit usage to an impractical level, given the need for the

regulation to be effective for business users, not just for occasional visits by tourists. The rules should also be consistent across all Member States in order to create an understandable and manageable environment for business users, a lot of whom manage fleets of several thousands, hundreds or tens of mobile devices, based across a significant number of Member States.

3.3   Sustainability

This qualification raises the greatest concern for users, since any operator could claim that total loss of roaming revenue and profit would make their business unsustainable. It has been a consistent position of business users that all mobile network operators must adjust their business models progressively, so that they are not dependent on roaming revenue or profit at all. Accommodating this process has been one of the main reasons why it has taken so long to reach elimination. Ideally, there should be no "sustainability" cases, but if such situations do arise with claims for legitimate exemption, these should be challenged robustly, and limited to a very short period of derogation.

3.4   Non-EU Roaming and International Call charges

Business users raised concerns that some mobile operators sought to recover "losses" in revenue by increasing roaming charges to and from countries outside the EU markedly (the "waterbed" effect).

Some operators also increased the price of international calls and text messages (which in some cases became several times greater than the same call and text being used in a roaming context). This occurred even within the EU. INTUG believes this practice should be stopped by regulation. The European Commission must monitor side effects and publicise evidence of abusive practices.

The ITU and OECD are vigorously encouraging multilateral action against charges which amount to a 'tax' on cross-border trade, like international roaming charges. Europe should continue to take a leading role in driving initiatives to eliminate all international roaming charges globally.

4   Business User Requirements for a Digital Single Market

The Digital Industrial Revolution has been described as Industry 4.0, or the Internet revolution, after horse and water power, the internal combustion engine and steam power and computers. Competitiveness in the EU economy depends on creating and sustaining an open and connected environment, suitable for innovative on-line international business processes. Opportunities for improvement in efficiency and productivity exist in the public and private sector in all industries. It is vital that the EU regulates to optimise the whole economy, not just the ICT sector itself. End-to-end business processes involve multiple players in a heterogeneous environment of B2B and B2C connections, and multiple sequences of each, where business partners at each point make their own choices about service provider, information source, network operator and device.

Increasingly, underlying technology becomes less relevant. Seamless end-to-end service is the new target. The six design principles of Industry 4.0 each draw attention to important business issues.
(i) Interoperability reflects the need to connect systems, humans and things.
(ii) Virtualisation transforms network functionality, making physical processes location agnostic.
(iii) Decentralisation devolves decision making to inanimate objects unaware of national borders.

(iv) <u>Real-time</u> function demands low latency, transitory data and the need for resilience.
(v) <u>Service orientation</u> emphasises a technology neutral philosophy.
(vi) <u>Modularity</u> highlights the need for users to be able to switch technologies and suppliers.

All of these principles must be applied in the rapidly escalating context of the Internet of Things (IOT) and Machine-to-Machine (M2M) applications. For business users, the need for the general principles of the Regulatory Framework with ex-ante sector regulation persist, necessitating protection for competition in wholesale and retail services, and greater sharing of networks by mobile network operators for new generation services.

The technology context in which business user service requirements must now be assessed and projected is very different from that obtaining, even less than ten years ago. The rapid introduction of smart devices, the increased capability of fixed and mobile/wireless networks and the widespread take up of online business processes by individual consumers have combined to create opportunities for innovative start-ups, whilst enabling SMEs to operate beyond their home markets. It is now an essential requirement to achieve a connected world of systems, human beings and "things".

The basic requirement for business users now is therefore to be able to connect with all the other organisations in their extended supply chain with open access, open choice of device, application, data source and network supplier, and end-to-end quality of service appropriate to each process. This freedom and flexibility will encourage innovation and competition where this results in greater efficiency in provision of communications infrastructure.   The benefits of such an environment are huge. Businesses can be motivated to invest in new online e-commerce processes, and to innovate more using the latest technology. Currently businesses remain locked in inefficient legacy systems.

Businesses of all sizes, from multinationals with major investments in private networks, to start up SMEs seeking to expand their businesses across national borders, are still trapped in national silos for their network services and contracts. Less than 10% of SMEs in the EU trade cross-border. Internet access to another Member State represents just 5% of international access, whilst access to the US represents 50%. This EU insularity is costly, not only in terms of economies of scale for access, but also in terms of the administration of dozens and sometimes hundreds of separate, often incompatible and inconsistent, national contracts.

4.1   Network Neutrality

Business users support the principle of non-discriminatory access and traffic management. But complete exclusion of "paid priority", as implied by the FCC's ruling in the US, is an alarming development. The other pillars of the FCC Ruling of no blocking and no throttling, if properly implemented, are valid, although throttling might be considered to include peak load management, which is of course advisable and unavoidable. Certain types of application require guaranteed quality of service including end-to-end integrity, low latency and high resilience, for example in tele-surgery, real-time vehicle control and finance trading, and remote operation of industrial plants processing dangerous chemicals.

The implementation of the Network Neutrality regulation must therefore allow differentiated traffic management to meet the needs of specialised service, but done in a transparent and non-discriminatory manner, both before, during, and after normal and contingency post-failure situations. Classification of applications for this purpose could be shared with that used for analysing Specialised Services in the new Relevant Market for business users.

4.2   International Mobile Services

The international market remains a fragmented patchwork of national mobile services. Businesses attempting an international mobile framework contract end up with many individual annexes - one for each Member State in which they operates. There is a lack of competition, inconsistent tariff structures, fragmented pricing and service models. National units of international operators seem more concerned with their own growth, margins and market share, than with providing a comprehensive international service to the customer. Businesses suffer inefficiency and high costs. As one major company observed, "I want one supplier, one contract, one SLA and one tariff".

4.3   The Internet of Things and Machine-to-Machine (M2M) Applications

These developments threaten to disrupt the current regulatory and technical framework. The public and private sector can both benefit enormously from the opportunities offered from connected objects, for example in the health, transport, education and high value consumer goods sectors. All industries and government administrations should be able to improve the service content and quality offered to citizens, customers and business partners.

The underlying principles by which the IoT operates, must include openness, interoperability, standards, consistency and harmonisation, especially in communications networks used. Critical applications must not be invalidated by an inability to implement the necessary traffic management and prioritisation. M2M Devices must not be tied to specific networks, or penalised for connecting when not in their home country or country of origin. For security of connection, devices should have the option of connecting to the strongest signal available. Given the need for such an arrangement for M2M devices, it would make sense to apply the same connectivity principles to all mobile devices. This needs a "soft SIM" approach and elimination of roaming charges.

4.3   Indoor/Venue Coverage

Businesses currently face inconsistent standards and exclusivity barriers in indoor mobile coverage in buildings and within venues, for example entertainment sites. Greater standardisation is required and open access, given the impracticality of installing mobile and wireless infrastructures within such locations from all potential operators and service providers. The most efficient approach, which also creates the greatest user welfare and investment productivity, is to ensure that all service providers and operators can be accessed throughout the location. Ownership of the infrastructure must not represent a barrier to competition or access to services and applications.

4.4   Cloud Services

Economic benefits derived from cloud services are considerable in the private and public sector. They can connect more people to more services at lower cost and with better quality. However,

business users remain hesitant to rely on them, especially for mission-critical applications. They need more confidence in providers and services. Cloud contracts should not be standardised. Instead, standard definitions of terms and metrics for service quality are needed, in parallel with flexibility to negotiate tailored contracts. To create a cloud-friendly EU, users also need to be informed about how to avoid the pitfalls.

Protection of personal data as required by the relevant Directives must be assured, with guaranteed privacy. In the absence of confidence in this area, opportunities for efficiency and economies of scale offered by both public and private cloud services are not being fully exploited. One important prerequisite is adequately strong contractual terms and an appropriately designed service level agreements (SLAs). The European Commission has been working on these areas and has drafted documents to address the issues. Once these are tested in the open market, this will lead to an uptake in business usage.

Businesses need to retain the flexibility to switch supplier, component service, access device or application, without constraint. The lock-in risks of vertical integration implicit in some cloud services must also be eliminated, or at least subject to transparent controls. Protection of data and software in the event of cloud supplier failure must be enshrined in legal escrow rights.

Data retention and privacy regulations must be harmonised. Companies do not have the resources to retain legal specialists to determine the differences from country to country. Cloud services and providers are mostly international, in order to benefit from economies of scale.   The varying and complex regulations in different European markets make confident observation of applicable law difficult, resulting in a natural aversion to legal risk. The General Data Protection Regulation will be a critical enabler in removing this obstacle, and it needs to be implemented quickly and in a manner appropriate for use in a business context.

4.5   Software Vendor Code of Conduct, including Software Licensing

Software licensing is becoming an increasingly significant issue for businesses as they seek to build their ICT environments more efficiently, whether within their own organisation, or via systems integrators and cloud service providers. Currently they face with a new generation of software licensing challenges. Software suppliers, fearing potential risk to their business from consolidation and sharing and economies of scale, are becoming aggressive in the application of software audits. For some software companies, these generate 25% or more of their revenue. For business users, software licence costs represent on average 22% of their ICT budget.

In a dynamic business environment, company acquisitions and disposals make it imperative that entities be able to integrate new subsidiaries within their existing contracts, with a rapid and seamless transition from different suppliers, for devices, network services, cloud application provision, data storage and other components of the ICT environment.

Unclear rules about software licences, and the implications of distributed networks, consolidation into data centres, and larger servers, can all be a deterrent to efficient business investment.

INTUG has prepared a proposal for Code of Conduct for Software Publishers, and hopes that the European Commission will support and endorse this initiative

4.6   A Connected Business Economy

A connected society offers huge potential for social inclusion, and for reduced costs for provision of public services.   This would be greatly assisted by shared network services across government departments, with maximised consistency of application selection and information management.

In the private sector there are also opportunities for reduced cost, improved efficiency and greater standardisation. Small entities have neither the leverage to negotiate individually for what they need from providers, nor the resources to be fully informed about complex issues. By inclusion within the communications environment of a larger business partner, they may be able derive such benefits. However, the power of multinational corporations to negotiate international network services is often overstated, as they have to contract at national level for access services.

About INTUG

The International Telecommunications Users Group (INTUG) represents the interests of business users of telecommunications globally. These include some of the world's largest financial institutions, car manufacturers, pharmaceutical companies, fast moving consumer goods enterprises, and retail and distribution companies. They also include small and medium enterprises, who are increasingly dependent on telecommunications services.

The INTUG community includes user groups in many large European countries, including Belgium, Denmark, France, Germany, Spain, Netherlands, Norway, Sweden, Switzerland and the UK. These represent public and private business customers of communications service providers. INTUG is established in Belgium, governed by an elected Board.

INTUG was established in 1974, has links throughout the world, in countries as diverse as Algeria, Australia, New Zealand, Hong Kong, India, Indonesia, Mexico and South Africa.

INTUG has permanent observer status at the ITU, guest status in APECTel and CITEL, and is an expert group within the OECD/CISP.

INTUG engages actively with the European Commission and Members of the European Parliament, and has made submissions to many EU regulatory consultations and events.

Confidentiality
Nothing in this document is confidential. The contents may be considered as in the public domain, and available for distribution. They are based on regular consultation by INTUG with its member associations, and their members, on draft documents prior to submission.

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Annex   Background to the Consultations to which this submission responds

The two telecoms consultations - on telecoms and broadband needs - are an important part of the Commission's strategy for a Digital Single Market, including an ambitious overhaul of EU telecoms rules planned for 2016. They are also vital inputs to the ongoing Regulatory fitness and performance programme (REFIT) evaluation of the EU's telecoms rulebook.

The overall aim is to ensure that the EU has a regulatory environment, which is:
- sustainable,
- market-based,
- high-performance for fixed and wireless broadband infrastructures,
- creating the rules that are fit for purpose for 2020 and beyond.

This requires:
- effective spectrum coordination, and common EU-wide criteria for spectrum assignment at national level;
- creating incentives for investment in high-speed broadband;
- ensuring a level playing field for all market players, traditional and new;
- creating the effective telecoms rules.

The Commission is therefore carrying out a 360° review of the existing rules which will help to prepare regulatory proposals for 2016. The scope of this review includes key EU sector legislations:
- Framework Directive (2002/21/EC),
- Authorisation Directive (2002/20/EC),
- Access Directive (2002/19/EC),
- Universal Service Directive (2002/22/EC)) as modified in 2009 by the Better Regulation Directive (Directive 2009/140/EC),
- Citizens' Rights Directive (Directive 2009/136/EC),
- BEREC Regulation (Regulation 1211/2009).

The current EU telecoms rules, which help to open-up the telecom markets, free up bottlenecks and enabled access to key inputs, give access to networks and spectrum, have promoted competition, allowing customers to reap significant benefits in terms of choice and prices. National markets offer customers a variety of services and tariffs, enabling them to choose services that best correspond to their needs and permit swift and easy change of providers.

In 2010, the Digital Agenda established EU broadband targets, which quickly became a reference point for National Broadband Plans throughout Europe. Five years on, there has been significant progress in terms of broadband roll-out across Europe. All EU households now have access to a basic broadband connection (see IP/13/968), Next Generation Access (NGA) fixed-line technologies capable of providing at least 30 Mbps are available to 68% of EU households (end 2014). However, with about 6% of homes subscribing to a 100 Mbps broadband connection, achieving the 50% take-up target remains still challenging.

In parallel with developments in supply since 2009, consumer demands, habits and expectations have changed even more dramatically, largely fuelled by the proliferation of smart devices.

Worldwide, consumer Internet traffic grew 26% in 2013. Until now, this has largely been driven by video-based usage. For example, the number of hours people are watching YouTube per month is up 50% year-on-year, while 300 hours of video are uploaded to YouTube every minute.

It is estimated that Internet video traffic will reach the equivalent of 16 billion DVDs per month, or 22 million DVDs per hour by 2018.   People need to be connected not only at home and at work, but also on the move. As a result, our societies are becoming increasingly dependent on high-speed Internet. The use of Cloud services, the Internet of Things, the data economy, the abundance of content, increasingly cheaper and smarter mobile devices are expected to accelerate this trend.

The Commission will therefore examine whether the current rules, designed to liberalise former monopoly networks and services, sufficiently incentivise all market players to meet tomorrow's high-capacity demands across the whole Union.

The consultation on future Internet speed and quality asks respondents to reflect about:
• which of their future products and services will depend on connectivity;
• needs related to downloading and uploading data,
• required speed and other quality features like latency,
• ubiquitous connectivity,
• security.

The consultation on the review of the Regulatory Framework established in 2009 asks respondents for input on five key challenges:

• Network access regulation: The review will assess whether the regulatory objectives are still fit for purpose or whether they should be complemented with a stronger emphasis on availability and take-up of high-quality connectivity as a policy objective. It will ask whether the operators who are investing significant amounts of money in the very highest capacity networks need greater assurances of a long-term return on investment. The difficulty in relying on infrastructure competition to drive network investment in more rural areas points to a possible need to reassess the appropriate degree of complementarity between sector-specific access regulation and other measures which could enable efficient public intervention.
• Spectrum management: to promote the deployment of high speed wireless networks and the further development of electronic communications and innovation, the review should focus on how greater consistency could be achieved by different means and through different levels of harmonisation or coordination (more efficient technical harmonisation; more convergent assignment conditions and timing to support investment);
• Communication Services: to look at ways of updating sector-specific rules if they are still needed, while ensuring a level regulatory playing field for all players to the extent that they provide comparable services.
• Universal service: the review will evaluate whether the current scope of mandatory services is consistent with market and technological developments. In particular, the role of broadband as part of universal service and its implications for the financing mechanism will have to be carefully assessed.

- Institutional set-up and governance: this covers the need to enhance regulatory consistency across the Member States and to deliver convergent market outcomes while taking account of different local and national conditions. The review will explore more efficient and simpler arrangements for co-operation between regulators at EU and national level.

In the coming months the Commission will discuss telecom issues at meetings and workshops with Ministries, European Parliament committees, the regulatory community, users and the industry at large. Following the consultations the Commission will present in 2016 its proposal on how to address the identified challenges in telecoms and Internet speed and quality.