International Chamber of Commerce
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Policy statement

Prepared by the ICC Commission on

E-Business, IT and Telecoms ■ Task Force on Internet and Telecoms Infrastructure and Services (ITIS)

Global business recommendations and best practices for lawful intercept requirements

Highlights

- Preserving law enforcement capabilities in an Internet Protocol (IP)-enabled world
- Ensuring that law enforcement needs are consistent with other important legal obligations related to information security, human rights and privacy as well as the goals of promoting innovation, competition, economic development and international trade
- Practical recommendations for achieving consistency

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Global business recommendations and best practices for lawful intercept requirements

Introduction: A balanced approach to expanding lawful intercept requirements

For many decades, as a condition of holding a telecom license, nearly every country has required telecommunications and Internet service providers (collectively "communications service providers" or CSPs) to cooperate with investigations by law enforcement agencies (LEAs), including with LEA requests for lawful intercept (LI) of communications[1]. Until recently, such licenses and associated regulation imposed specific requirements to build network capabilities to support LI only on a small number of infrastructure operators and mass market voice service providers. Now, driven by the ongoing migration from traditional public switched telephone network (PSTN) services to Internet Protocol (IP)-based services (which pose genuine challenges for traditional LI), many countries are adopting and implementing increasingly detailed and costly requirements on many CSPs to build network capabilities that support LI at the demand of LEAs.

Unfortunately, some current approaches to LI capability regulation, involving broad LI mandates on all or most CSPs, threaten the development of an innovative, competitive communications market. These approaches can impose significant costs, technological challenges and regulatory uncertainty on CSPs (including by using existing inadequate LI technical standards), and should be consistent with legal obligations such as those related to information security, privacy and human rights. These issues impact upon businesses across sectors and geographies, both as users and as service providers.

To address these challenges, there are specific practical approaches that can provide LEAs with all or most LI capabilities that they reasonably require, while minimizing unnecessary adverse effects on CSPs and the communications market. As detailed in this policy statement (with eight specific recommendations), these practical approaches seek to balance the interests of LEAs, CSPs, business users and consumers, and to ensure a level playing field for all CSPs.

ICC's recommendations involve:

- dialogue between governments and CSPs to define clear and transparent LI requirements that align proportionately obligations and benefits specific to individual CSPs;
- efficient LI implementation through regulatory consistency, adoption of existing international technical standards, and centralized, multi-country LI solutions;
- public funding of LI capability costs; and
- LI law and regulation that is clear, transparent and judiciously implemented.

[1] *LI means the legally mandated capability to intercept communications in the course of transmission between two or more parties, required to support valid law enforcement investigative purposes, and does not include other measures CSPs are required to implement to address other illegal activity conducted over their networks.*

Preserving law enforcement capabilities in an IP-enabled world

Over the past 15-20 years, the world's communications infrastructure has been in transition from circuit-switched networks based on the PSTN, to IP-based networks centred around the Internet and other IP-enabled private networks. These changes have major effects on LEAs that rely on LI when investigating and prosecuting crime and terrorism. Older technological tools for LI can become obsolete or ineffective, while at the same time increased availability of certain types of data can facilitate legitimate law enforcement work. CSPs recognize that LEAs face particular challenges from the current widespread migration of traditional voice communications to voice over Internet-Protocol (VoIP), the increasing range of IP-enabled data services, and increasing use of encryption. ICC and its members respect the efforts of LEAs to manage these legitimate challenges.

Notwithstanding the ongoing transition to IP-based services, the long history of LI is highly relevant to current legal and regulatory initiatives, in several main ways. First, for as long as communications networks have existed, it has been the law in virtually every country that LEAs may demand an ability to intercept communications of specific target individuals, upon demonstrating proper legal authorization. But with fairly limited exceptions, national laws provide this authority to LEAs without mandating specific, broadly-applicable rules on LI capabilities that must be deployed by every licensed service provider[2]. Instead, acting under legal mandate, LEAs and CSPs have worked flexibly to implement required intercepts, in a manner that reflects legitimate LEA needs and CSP technical capabilities.

Second, historically LI resources have focused on the mass market public networks that are most often used by criminals. Fairly recently, this has gone beyond PSTN voice also to include public mobile networks and the public Internet. Conversely, there has been little need to conduct LI on enterprise networks (such as the virtual private networks (VPNs) now deployed for most multi-national companies) – for the simple reasons that most criminals have little opportunity to use such networks for their communications, and that most investigations of "white collar crime" are done through direct LEA cooperation with the affected enterprise through access to company servers, switches and other facilities, without the involvement of a CSP. For these reasons, neither frequency of investigative need nor technology has merited a general policy of applying LI obligations to enterprise networks.

Third, over recent decades, the International Telecommunication Union (ITU), European Telecommunications Standard Institute (ETSI) and 3rd Generation Partnership Project (3GPP) and other bodies have developed international standards for LI, taking into account applicable international agreements and national laws.[3] These standards seek to promote interoperability between equipment of different vendors and to contain costs through economies of scale. Governments should recognize these international standards and should not impose unnecessary and costly deviations from them.

Fourth, governments have implemented LI in a narrowly-tailored way to minimize the risks to network security, privacy and human rights that can flow from overly broad LI regulation, recognizing that LI is a specific exception to the general requirement of secrecy or privacy of communications (see e.g. Article 37 of the ITU Constitution). This approach has been essential to public confidence in using electronic networks, and to the reliability of those networks. Although national governments have a

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[2] *Exceptions to this approach began to emerge in the mid-1990s, with the Communications Assistance for Law Enforcement Act ("CALEA") in the United States and the Sistema Operativno-Rosysknykh Meropriatii ("SORM") in Russia, and more recently the Telekommunikations-Überwachungsverordnung ("TKÜV") in Germany. But these measures continued to provide flexibility in enforcement, such as CALEA's exceptions for information services and private networks (Section 103(b)(2)) and "safe harbor" for compliance with industry standards (Section 107(a)), and the enforcement discretion that Russian LEAs may exercise under SORM.*

[3] *See, e.g., ETSI, statement at http://portal.etsi.org/li/Summary.asp: "The purpose of standardization of lawful interception in ETSI is to facilitate the economic realization of lawful interception that complies with the national and international conventions and legislation. The Technical Committee on Lawful Interception (TC LI) is the leading body for lawful interception standardization within ETSI. Lawful interception standards have also been developed by ETSI technical bodies AT, TISPAN (SPAN and TIPHON™), TETRA, and by 3GPP™ (SMG)."*

leading responsibility in defining these critical public policy objectives, they are all increasingly important issues for business.

Recently, rather than following these sensible, time-tested practices, some countries have started to adopt "one-size-fits-all" LI obligations on all or most CSPs.[4] This indiscriminate application is neither proportionate to reasonable need, nor sustainable for most competitors.

Ensuring consistency with legal obligations and other national goals

In considering LI capability laws and regulations, governments must ensure that the law enforcement requirements to CSPs related to protection of public, national and international security are consistent with other important legal obligations and national goals, such as:

- Promotion of innovation – Innovation (and associated increases in productivity) is an important engine of economic growth. Costs from strict or uncertain LI regulation can significantly reduce CSP incentives to innovate. Utilizing international technical standards for LI reduces cost and uncertainty, and can free resources for productive innovation.
- Competition and economic development – A modern and robust communications infrastructure (which is almost always associated with a competitive market) is crucial to economic development. The same factors of uncertainty and cost that deter innovation can inhibit development of infrastructure and competition, particularly because new market entrants are often least able to bear LI costs.
- Information security, human rights and privacy – "Back doors" into CSP networks that are used for LI can pose serious cybersecurity risks if not carefully implemented, and these risks increase as LI requirements proliferate. Likewise, overly broad LI requirements can raise privacy and human rights concerns.
- Facilitating international trade – International trade is also a crucial driver of growth, and is subject to treaty obligations in most countries. LI requirements can be particularly burdensome for foreign entrants as non-tariff barriers, in part because foreign entrants can have difficulty establishing working relationships and clear guidance from LEAs, particularly if their organizations and procedures are not transparent. This makes approval processes more opaque and lengthy.

These are all important goals. LEAs must have the lawful tools to enforce national laws, including counter terrorism, online child pornography and other crime. However, it is not in the overall interest of society to adopt an LI regime that is so strict, expansive or uncertain that it materially impairs the other important legal requirements and goals mentioned above, reduces availability of new communications services, or substantially increases their cost. This is particularly so where LI regulation mandates capabilities that are rarely if ever used (e.g. significant requirements to design and pay for LI for enterprise VPNs). Balancing the benefits and costs of LI regulation is crucial.

[4] *For example, the Canadian Parliament is currently considering Bill C-47, which would impose broad LI capability obligations that are inconsistent with many of the recommendations in this paper.*

Practical recommendations for achieving consistency

Fortunately, it is not a zero-sum game to achieve consistency among the above economic goals, legal requirements related to human rights, and the legitimate public and LEA security interest to carefully use LI to fight crime and acts of terrorism. There are various practical approaches to LI regulation that can support the legitimate needs of LEAs without materially impeding other important economic policy goals, or undermining public confidence in government. This effort should involve careful consideration of what information is required by LEAs, what is the most efficient process for obtaining it, how to ensure a level playing field for all CSPs and how to ensure that rules are clear and transparent.

ICC has eight practical and specific recommendations for how governments can strike an optimum approach.

Recommendations 1, 2 and 3 relate to the single most important principle for effective LI regulation – i.e. that LI capability requirements should be based on findings of service-specific and CSP-specific need, flexibly based on transparent, standardized, and modular guidelines. Regulators, LEAs and CSPs can cooperate to develop "modular" LI guidelines (*i.e.* discrete obligations corresponding to particular services and/or LI requirements) that are consistent with common international standards, permitting variations in LI obligations that are narrowly tailored to the actual activities of an individual CSP. Such modular obligations can ensure a level competitive playing field among similarly-situated CSPs, while avoiding obligations that are unnecessary for particular services or service providers.

This principle of applying narrowly-tailored obligations to CSPs is strongly supported by two of the historical practices described in Section I above that:

- LEA authority to intercept communications has been tailored to legitimate need and focused on significant CSPs in a market, rather than imposing broadly-applicable LI capability mandates on all CSPs in a market; and
- LI obligations have focused on the mass market, public networks where they are most relevant, and not focused on enterprise VPNs where they are rarely relevant.

Overall, the goal should be to ensure that there is a level competitive playing field for which LEAs require only the capabilities they need from a CSP, and that targeted LI requirements do not unfairly disadvantage any particular CSPs or disrupt market entry decisions. Under the modular approach described above, ensuring a level playing field does not require all CSPs to implement an identical LI solution, but rather that LEAs require CSPs to implement a proportionate and relevant solution based on the CSP's size, scope, customer segment and other factors. In short, fair and transparent treatment of all interested parties in the communication market should be overriding LI principles.

Recommendation 1: LI capability obligations should be determined between governments and individual CSPs, based on transparent, standardized and modular guidelines. This narrowly-tailored approach will ensure that LI obligations on the individual CSP will bring proportionate benefit

As discussed above, historically it has been the consistent practice in most countries for LI capability requirements to be agreed between governments (i.e. government agencies, independent regulators and LEAs) and carriers; and this remains the case in most jurisdictions. Most countries have mandated LI capabilities (i.e. what information they need to conduct legitimate LEA activity) but have not mandated that everyone must build it.

For example:

- In Italy, which by some reports leads the world in number of intercepts,[5] there are no specific statutory requirements for LI capabilities.
- In the UK, the Regulation of Investigatory Powers Act 2000 (RIPA) provides explicitly that interception capability obligations must be specified by notice from the UK Home Office to an individual CSP (see RIPA § 12).
- In Portugal, the National Communications Authority (ANACOM) decides whether to demand that a CSP implement an LI capability in its network, followed by a formal request to comply.
- In South Africa, the Regulation of Interception of Communications and Provision of Communications-related Information Act, 2002, Chapter 5, requires the government to prescribe any interception requirements in connection with the issuance of a telecommunications services license.

In the countries that have departed from this individually tailored approach (e.g. the United States under CALEA), LI costs have been massive without a commensurate increase in LI effectiveness.

The ICC supports this individually and narrowly-tailored approach, with one improvement. To ensure transparency and consistency with common international standards, ICC recommends that LI requirements should be based on a set of transparent, standardized and modular guidelines that are established by regulators, LEAs and CSPs. This modular approach will promote both a level playing field among similarly situated CSPs, as well as a proportionate obligation to ensure LEAs require only LI information that they need.

Recommendation 2: CSPs serving only enterprise customers should be subject to minimal, proportionate LI capability obligations

For obvious reasons, criminals and terrorists very rarely conduct communications of interest to LEAs via the VPNs of significant business enterprises. Although statistics supporting this point are generally confidential, the anecdotal evidence is compelling and can be confirmed by LEAs. Most large multinational enterprise CSPs rarely receive enterprise LI demands – both because LEAs needs to conduct LI over enterprise VPNs are limited and because it is extremely difficult for an enterprise CSP to identify and isolate an individual subject from the enterprise traffic stream which is typically subject to customer control. Since commercial enterprises generally have extensive in-house control over their networks, it is usually most effective for the enterprise customer to provision intercepts directly in response to LEA requests. Given these factors, LI obligations on CSPs serving only enterprise customers in a given country should remain minimal, and proportionate to realistic threats. This limited obligation on enterprise VPNs can be developed using transparent, standardized and modular guidelines, as set forth in Recommendation 1.

Recommendation 3: Proportionately lighter regulatory obligations should apply to small CSPs with few customers in a given country, to keep benefits and costs in balance

Consistent with the objective to maintain a level playing field, LI capability obligations should be proportionately less extensive for small CSPs, particularly because of the substantial competitive effects of LI costs on small CSPs, who cannot enjoy the significant economies of scale and scope associated with LI implementation (see Recommendation 5 below). Small CSPs expect to remain

[5] *See Albrecht, Dorsch and Krupe, Max Planck Institute for Foreign and International Criminal Law (2003), available in German language at http://www.bmj.de/files/4bfe017994eccc52fd3f9792da2e4a13/136/Abschlussbericht%20%C3%9Cberwachung%20Telekommunikation.pdf.*

subject to general obligations to support LI upon LEA request, in order to prevent such CSPs from becoming known "safe havens" for criminals, but this does not mean that they must face the same LI capability obligations as large CSPs. The historical approach of applying LI requirements only to large, mass market networks recognizes that intercepts can generally be applied to another larger carrier in the network (i.e. facilities-based access line provider, or international gateway provider) rather than to every small CSP. Accordingly, it may be appropriate to apply lighter regulation to small CSPs as a starting point, but to retain the authority to impose more extensive obligations on the small CSPs that LEAs determine to present particular risks. Furthermore, full reimbursement of LI costs (see Recommendations 6 and 7 below) can ensure that differential obligations on large and small CSPs do not interfere with a level competitive playing field.

As a result of such considerations that tie proportionate obligations to anticipated law enforcement benefit, for example:

- In both Germany (which has the most detailed LI capability regulation in Europe) and the UK, CSPs that serve less than 10,000 customers are exempt from LI capability obligations, unless specifically directed otherwise (*see, e.g.,* TKÜV § 3(2)(5); UK Regulation of Investigatory Powers (Maintenance of Interception Capability) Order 2002, § 2(3)(a)).
- In Luxembourg, small CSPs may be granted an extra two years to meet LI requirements (see Regulation 08/134/ILR on Lawful Interception of Telecommunications and Application of ETSI Standards, Art. 14).

These regulations offer good precedents of how to achieve consistency among security, economics and human rights policies, which should be considered carefully by other countries. This limited obligation on CSPs with few customers can be developed in a manner consistent with the transparent, standardized and modular guidelines set forth in Recommendation 1.

Recommendations 4 and 5 seek to reduce CSPs' LI implementation costs, by avoiding multiple different solutions and/or multiple implementations of the same solution in different countries. Where LI mandates must exist, the goal should be to allow CSPs to implement LI solutions at an efficient scale, rather than incurring country-specific design and deployment costs for hardware and software development, deployment and hosting. Without the benefit of scale and replication of hardware and software across jurisdictions, the design and deployment costs for a single country can exceed 20 million US dollars, which could make operations in a country heavily loss-making even for a large CSP.

Recommendation 4: LI laws, regulations and standards should be consistent across borders, and utilize international technical standards

There would be compelling benefits if LI laws, regulations and standards could be significantly harmonized across borders – subject of course to some variation required by difference in national legal systems and communications networks. Some progress in this area has been made. The Constitution of the International Telecommunication Union (ITU) addresses LI and privacy[6]; and the European Telecommunications Standards Institute (ETSI) and the 3rd Generation Partnership Project (3GPP) have defined LI implementing standards for telecoms equipment, and LEA and CSP

[6] *Constitution of the International Telecommunications Union, Article 37 - Secrecy of Telecommunications:*

"1 Member States agree to take all possible measures, compatible with the system of telecommunication used, with a view to ensuring the secrecy of international correspondence. 2 Nevertheless, they reserve the right to communicate such correspondence to the competent authorities in order to ensure the application of their national laws or the execution of international conventions to which they are parties."

practices[7]. Most countries use these standards[8]. Indeed, Spain recently took the precedent-setting step of requiring by law that CSPs adopt ETSI's TS 101 671 [Handover Interface specification for delivery of LI data to LEAs[9]]. More generally, LEAs have recognized the benefits of international law enforcement cooperation (e.g. through efforts such as the G-8 24/7 High-Tech Crime Network, which now includes more than 60 countries), and consistent regulation and standards facilitate such cooperation. There is a significant opportunity to expand such cooperation and improve consistency of global LI laws, regulations and standards. Such government coordination and utilization of technical standards helps to minimize LI costs and to promote LI best practices. These approaches should continue to be the norm.

Recommendation 5: Centralized, multi-country LI solutions should be permitted

Individual countries should not unreasonably restrict CSPs from meeting LI obligations of multiple countries via centralized facilities, at locations selected based on commercial considerations. This is particularly important for communications services using global platforms on which interception is practical at only a limited number of locations (e.g. many satellite systems). ICC understands that LI facilities in some foreign locations may raise legitimate concerns for a LEA (e.g. countries with diplomatic or security tensions), but that should be the exception and not the rule. This ability to deploy LI solutions should be independent of whether the countries served by such a facility have the same LI rules, since technological solutions can usually permit a single facility to satisfy more than one set of legal obligations. Similarly, LEAs should permit use of LI equipment and systems produced by foreign manufacturers, since such products can often deliver optimal LI capabilities and cost-effectiveness, particularly in cross-border architectures. Of course, CSPs operating centralized facilities would need to ensure that cross-border LI architectures do not impair the jurisdictional basis for LEAs to conduct LI, and to include appropriate measures to protect information security and privacy. Subject to such considerations, cross-border LI solutions should not be legally barred.

Recommendation 6 and 7 involve the funding source for LI capital and operating costs. It is well established in law and practice in most countries that LEAs bear many or most of the costs of LI. Examples of countries that provide for reimbursement of LI costs (e.g. costs of hardware and software design, acquisition and maintenance, and delivery of LI information to LEAs) include:

- Estonia – see Electronic Communications Act, § 114;
- Finland – see Communications Market Act, § 98;
- France – see Post and Electronic Communications Code, Art. D98-7;
- Italy – see Decree of 26 April 2001;
- Lithuania – see Law on Electronic Communications, 2004, Chapter 11, Article 77; and
- UK – see RIPA § 14.

Such cost-recovery rules are clearly good policy because achieving the security that LI supports is a public benefit that should not be purchased primarily by CSPs. Without cost-recovery rules, LI obligations can impose significant competitive distortions on communications markets, particularly for new entrants and smaller CSPs.

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[7] *See ETSI Technical Committee on Lawful Interception list of standards, available at http://portal.etsi.org/li/Summary.asp.*

[8] *Notable exceptions include the similar CALEA-related standards in the United States developed by ATIS and TIA, and Russian SORM specifications.*

[9] *See Order ITC/313/2010.*

Recommendation 6: Costs of LI capabilities for all CSPs (regardless of size) should be paid with public funds

Requiring the public to bear the costs of LI capabilities also encourages governments to conduct a full and fair cost-benefit analysis when considering new LI capability requirements. Importantly, the countries listed above have adopted specific rules on CSP recovery of LI costs, but while generally maintaining flexibility regarding LI capability requirements. Combining the discipline of public reimbursement for LI deployments with flexibility regarding LI requirements encourages LEAs to demand only those requirements proportionate to their reasonable need and limit LI costs to those that are strictly necessary.

Recommendation 7: Fixed LI costs should be reimbursed directly, not through intercept-related charges

Most CSP costs for building LI capabilities are fixed capital costs of deploying required hardware, software and personnel. By contrast, once the LI infrastructure is in place, variable costs for intercepts are relatively low. In order to avoid market distortion, it is essential that governments reimburse fixed costs of LI infrastructure at the time they are incurred, rather than allocating the costs to intercept-related charges. The latter approach requires CSPs to bear excess costs of capital, and actually reduces LEA incentives to conduct appropriate intercepts by setting intercept charges far above marginal cost.

Recommendation 8: LI laws and regulations should be clear and transparent

Recommendation 8 is a simple one. Separate from the substantive issues addressed by our other recommendations, it is crucial for LI laws and regulations to be clear and for associated regulatory processes to be transparent. Uncertainty regarding LI obligations can be a major deterrent to CSPs that are seeking to innovate or to enter or remain in new markets. Even if LEAs will enter into individual negotiations with CSPs to determine what (if any) LI system must be implemented based on proportionate need, the outer parameters of the regulatory, technical and economic obligations on the CSP should be transparent, with agreed LI requirements limited to those provided by legislation.

Conclusion

In conclusion, the recommendations in this policy statement offer an opportunity for LEAs and CSPs to promote the inter-related priorities of security, economic prosperity, privacy and human rights, by providing ways for LEAs to have the legitimate LI capabilities needed to counter crime and terrorism, while minimizing unreasonable and disproportionate burdens or costs for CSPs. Communications services are crucial tools in support of the nearly universal goals of economic and intellectual prosperity. It should be the shared aim of CSPs and governments to advance these goals, to promote customer confidence in reliable and affordable communications tools, and to avoid actions that would impair human rights, innovation, competition, information security or trade. For all of these reasons, it is crucial to apply only targeted, proportionate uses of LI in accordance with the recommendations in this policy statement.

The ICC and its members are open to dialogue with LEAs and governments on how these recommendations can best be implemented.

The International Chamber of Commerce (ICC)

ICC is the world business organization, a representative body that speaks with authority on behalf of enterprises from all sectors in every part of the world.

The fundamental mission of ICC is to promote trade and investment across frontiers and help business corporations meet the challenges and opportunities of globalization. Its conviction that trade is a powerful force for peace and prosperity dates from the organization's origins early in the last century. The small group of far-sighted business leaders who founded ICC called themselves "the merchants of peace".

ICC has three main activities: rules-setting, dispute resolution and policy. Because its member companies and associations are themselves engaged in international business, ICC has unrivalled authority in making rules that govern the conduct of business across borders. Although these rules are voluntary, they are observed in countless thousands of transactions every day and have become part of the fabric of international trade.

ICC also provides essential services, foremost among them the ICC International Court of Arbitration, the world's leading arbitral institution. Another service is the World Chambers Federation, ICC's worldwide network of chambers of commerce, fostering interaction and exchange of chamber best practice.

Business leaders and experts drawn from the ICC membership establish the business stance on broad issues of trade and investment policy as well as on vital technical and sectoral subjects. These include financial services, information technologies, telecommunications, marketing ethics, the environment, transportation, competition law and intellectual property, among others.

ICC enjoys a close working relationship with the United Nations and other intergovernmental organizations, including the World Trade Organization and the G8.

ICC was founded in 1919. Today it groups hundreds of thousands of member companies and associations from over 120 countries. National committees work with their members to address the concerns of business in their countries and convey to their governments the business views formulated by ICC.

ICC Commission on E-Business, IT and Telecoms (EBITT)

Business leaders and experts drawn from the ICC membership establish the key business positions, policies and practices on e-business, information technologies and telecommunications through the EBITT Commission.

With members who are users and providers of information technology and electronic services from both developed and developing countries, ICC provides the ideal platform to develop global voluntary rules and best practices for these areas. Dedicated to the expansion of cross-border trade, ICC champions liberalization of telecoms and development of infrastructures that support global online trade.

ICC has also led and coordinated the input of business around the world to the World Summit on the Information Society, Geneva 2003, Tunis 2005, and continues this effort in the activities established in the Tunis Agenda through its initiative, Business Action to Support the Information Society (BASIS http://www.iccwbo.org/basis).

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