Resolution on Software Interoperability and Open Standards

Consumer organizations clearly see interoperability as an important means to achieve consumer welfare in the sector of Information and Communication Technologies. Consumer interest relies heavily on the ability to exchange data from one software to another, and from one person to another, but also on the ability to understand that information so that it can be used. Standardisation and Open Standards can be useful tools to achieve interoperability.

There does not appear to be a clear policy approach on the part of the EU and US governments to promote interoperability in order to improve consumer welfare. Instead, efforts to develop interoperability tend to be left to market players. While this may be a valid policy approach in some emerging services, it requires rigorous and ongoing assessment to determine whether the market has delivered the necessary interoperable environment to serve the needs of consumers and the social welfare.

Recommendations

TACD resolves that EU and US governments should:

1. Analyse with a clearly defined consumer welfare perspective the efficiency, cost, and flexibility of all tools available to achieve interoperability.

2. Promote the creation and adoption of nonproprietary hardware and software interfaces through a combination of policy, legislation, regulation and procurement policies in addition to voluntary standards development activities.

3. Adopt concrete definitions of interoperability and open standards in different areas that take into account the context of the problem being addressed, and which promote economic and social development goals. These should clearly have the consumer and enduser interest as their focus. When possible and appropriate, such definitions should be explicit in addressing policy objectives of competition and functionality on different technology platforms, including those involving free software.

4. Adopt and make use of traditional exante regulatory approaches. Apply effectively, enforce vigorously and adapt where necessary traditional consumer protection laws to the digital environment; for example, by requiring clear and trustworthy warning 5 labels on products to signal lack of interoperability, adapting unfair commercial practices laws, and prohibiting unfair contract terms and sales.

5. Promote open standards through procurement and ensure the use of software and services based on open standards in public procurement policies through for example legal
mechanisms such as mandatory eGovernment Interoperability Frameworks. Ensure that public services and information/data are based on open standards.

6. Government procurement of software should include requirements that word processing and presentation graphics programs can read and write to open standards compliant document formats that are not effectively controlled by one company, and which realistically facilitate competition in the market for such programs, and which can be implemented effectively on at least the three leading operating system platforms. Government procurement of computer printers should include requirements that manufactures provide the drivers and interface information necessary to make such printers work with at least the three leading operating system platforms. By 2010, the US and the EU should make efforts to ensure government procurement of audiovisual software and services that use open standards compliant formats that work on at least the three leading operating system platforms. Government procurement of software should include requirements that saving data into an Open Standard should be the default setting of the program. Every two years, the US and EC should solicit public comment on additional areas where government procurement policy can be used to promote interoperability and open standards.

7. Where appropriate, mandate open standards for file formats, open intercommunication protocols, and interoperability for consumer software and services

8. Ensure disclosure of interoperability information that is essential to create interoperable applications and services.

9. Require data portability between systems and applications, as well as longterm access to personal and public electronic records

10. Vigorously apply antitrust legislation and investigate and expeditiously pursue anticompetitive practices that affect interoperability.

11. Proactively investigate and pursue any infringements of data protection and privacy regulations resulting from the development of new interoperability-based systems and services.

12. Establish a level playing field upon which Open Source or proprietary software can compete with each other fairly. This should be based on both the technical merits of the software and the merits of nonsoftware features: for example the potential for software to be redistributed or modified because of permissible copyright licensing, the availability of multiple service vendors, and the viability of the development community or company producing the software.

13. Ensure consumer organisations participation in standards, which is crucial to ensure best protection for consumers, and better acceptance of products and services in the market place. This will require increased public resources and greater openness in the standardisation system.
Background paper

Introduction
Information and communication technologies (ICT) are a rapidly developing and growing industry that involves a large number of players, including multimedia content providers and software developers. Software, in particular, is a driver for this rapid development and acts as glue between the various elements that ultimately deliver the required services to end users and consumers. The usefulness of software is closely related to its ability to work with other software. It needs to share common data formats and to be able to communicate through mutually compatible information transport protocols.

Software interoperability – or the ability to communicate or transfer data effectively between different programs and applications – is a topic that has received much policy and media attention in the context of digital rights management (DRM) technologies and music online distribution. However, interoperability is of high relevance in all technical developments. For example it is essential for the development of ID management systems, online payment systems, web services, and ecommunications such as consumer instant messaging applications, content shared over mobile devices, and the syndication of (primarily) user-generated content on the Internet, as well as all office applications.

Interoperability is a key policy objective of the EU in internet-based government services. The Interoperable Delivery of Pan European eGovernment Services to Administrations, Businesses and Citizens (IDABC) and the European Interoperability Framework v2.0 are the policy frameworks which enable and facilitate the creation of public services both by the Community institutions and within member states. The declared policy goal is to enable seamless delivery of public services on a large scale, speed up their development, and facilitate innovation in allowing more people to participate and to be creative.

This goal does not necessarily differ in business to consumer (B2C) services – yet no specific policy approach has been developed by the EU government. The same is true of the US.

Interoperability is also an important element in the World Summit on the Information Society (WSIS) Declaration of Principles. However, due to the fundamental principle of formulating policies that are technology neutral, it can be difficult to assess when there is a need for governments to legislate or interfere in other ways in the free market development. Open (or nonproprietary) standards, which are an essential tool in the creation of a common language to achieve interoperability, are a necessary part of this discussion.

What does ICT interoperability mean for consumers?

Consumer interest relies heavily on the ability to exchange data from one software program to another, and from one person to another – for example exchange music between players or word documents between different computers with different programs and operating systems. The common Internet language used by all web browsers, called HTML, is one of the best examples of interoperability, and how it can facilitate rapid development.

On the other extreme, the .doc file format used by the vast majority of consumers and organisations for word processing locks them into using only Microsoft licensed software and systems. In response, an Open Document Format (ODF) was developed in the OASIS standard. This is widely accessible, and allows various companies to develop interoperable word processing software. Even Microsoft has developed a competitor standard, called
Office Open (or Office Open XML). This shows how important standards are, and how they can be used to control or dominate a market.

Increasingly, situations like this are occurring online – for example consumers cannot transfer their account (friends and other data) between different networking sites, and they cannot instantmessage each other from the AIM network to the MSN network or vice versa. Yet this would be inconceivable today in the case of sending texts between different mobile phones and networks.

Interoperability is not just about exchanging information. It is also about understanding that information so that it can be used.

From a consumer perspective, software interoperability provides many advantages, such as:

- Access to better/more suitable software products or online services;
- The ability to benefit from the latest technological innovations and consequent adaptations;
- Decreased costs and increased choice through competition;
- Lower switching costs and ability to transfer data to different programmes and devices;
- The ability to safeguard data (documents, pictures, videos) over a long period of time;
- Fewer environmentally damaging discards of still usable equipment;
- Reduced potential for unfair contract terms;
- Reduced potential to be ‘locked in’ to one system or type of device.

Interoperability is also strongly linked to the wider public interest, including driving innovation, allowing more autonomy and diversity in the market, and achieving a more userfriendly information and communication technologies environment.

**Can interoperability be bad for consumers?**

Consumer organisations clearly see interoperability as an important means to achieve consumer welfare in the ICT sector. They remain unconvinced that alleged drawbacks of interoperability exist to an extent that could justify a lower level of rigorous policy steps to achieve interoperability in the first place. The extent of the claimed threats (mainly by companies with proprietary interests), in particular alleged threats to privacy, security and reliability, remain vague and evidence has yet to be delivered.

**How can software interoperability be achieved?**

There does not appear to be a clear policy approach on the part of the EU and US governments to promote interoperability in order to improve consumer welfare. Instead, efforts to develop interoperability tend to be left to market players. While this may be a valid policy approach in some emerging services, it requires rigorous and ongoing assessment to determine whether the market has delivered the necessary interoperable environment to serve the needs of consumers and the social welfare. This is not being done. Furthermore, economic incentives for business to speed up interoperability efforts are not being fully exploited.

There are several tools available to companies and other market players to foster interoperability. However, they do not always result in positive outcomes for consumers. These tools are:
• IP licensing. When left to the market, interoperability can be achieved through licensing of intellectual property rights (IPR) and technical collaboration that allow access to the technology or the technical specifications. From a consumer perspective however, the benefits remain between the contracting parties, and large-scale interoperability may not be achieved.

• Reverse engineering of software. This is a legitimate process of discovering the technological principles of a device or system through analysis of its structure, function and operation. While this might seem at first to be a sufficient tool to allow interoperable systems, many legal uncertainties surround this exception to exclusive rights, in particular prohibitions to circumvent technical protection measures. In addition, the overlaps of copyrights, patents and trademarks diminish the usefulness of this tool.

• Standardisation. Standards can be a useful tool to achieve interoperability. They can be defined and owned by one software developer (proprietary standards), and industrial community, an institutional standardisation body or adopted through massive use. Proprietary standards can be licensed for use by others (see above), and can dominate or control a market. In addition, standards setting processes are complex and relatively expensive. In most cases, especially informal standardisation, consumer involvement is limited or even excluded. Considerable resources are in fact needed for consumers to have their voice heard in industry dominated fora. A standard may also have an adverse effect on innovation and hinder technological developments.

• Open standards. There is a growing worldwide movement promoting new forms of standardization. In particular organizations such as the World Wide Web Consortium (W3C) and many others, including governments and civil society, stress the need to recognize and adopt open standards in preference to proprietary ones. There are many definitions for open standards, including that of the European Interoperability Framework. Some common features of these definitions include development through open democratic processes; public access and free copy and distribution of the standard specifications; and availability without intellectual property rights limitations, on a royalty free basis. The Internet is one of the best examples of rapid innovation and development through the common use of HTML, an open standard. Open standards have the promise of large scale benefits to consumers that other standards are missing.

The government toolbox

Governments should directly pursue ICT software interoperability and open standards. There are also several policy tools available to them to achieve this. Governments can:

• Mandate the adoption of an interoperable standard;
• Mandate the disclosure of information that is essential to build interoperable systems, components, and applications;
• Mandate the disclosure of information concerning the characteristics of a certain product or service in order to reduce information asymmetries;
• Give preference to interoperable products or services when undertaking procurement decisions and so encourage their market development;
• Attempt to achieve interoperability on an ex post intervention within the competition law framework;
• Adapt or interpret consumer protection law according to interoperability needs, in particular with regard to unfair commercial practices and unfair terms;
• Repeal, revise, or refrain from adopting intellectual property rights (IP) laws that have adverse effects on interoperability, mainly in the field of patent laws as well as in relation to prohibitions to circumvent technical protection measures.
Given the existing and different tools used by market players and government, a matrix of approaches could be developed. Such a matrix must be guided by a number of clear principles in the consumer interest.

**Core consumer interests and rights**
In this resolution, the TACD is guided by these basic principles:

- Maximum end user choice;
- A level playing field and maximum competition amongst software vendors;
- Open standards for file formats and intercommunication protocols for software;
- A defined migration path from older to new software, to maintain openness and interoperability
- Data portability when switching between providers
- Enhanced consumer privacy and data protection, when building interoperable systems