

Notes on the Code of Conduct on Net Neutrality

Basic principles

The undersigned network operators are committed to an open Internet.

The Internet is and will remain open to everyone. Openness means in particular new business models, new technologies and new products which are open to everyone. All Internet users, content and service providers, Internet service providers, network operators and everyone else on the Internet should be able to try new strategies or stick to tried and tested offers where competition for customers is concerned. This will make it possible to maintain and expand the Internet's role as a platform for innovation and as an important infrastructure.

The Internet must remain open to everyone, but efficient network management is required. For the Internet never has been and cannot be completely neutral, as the term net neutrality would have us believe. Not all data which flows through the Internet is and should be treated equally.

- Capacity bottlenecks cannot be ruled out, even though the network operators invest billions of francs every year in network expansion. A sensible network management policy therefore requires priority to be given to certain data packets. For instance, it is extremely important that all data gets to the user as quickly as possible in order to ensure that data-based voice services (VoIP) and IP-based television are of the highest quality. Otherwise it is not possible to guarantee the high level of voice and image quality promised to customers and paid for by them. Emergency calls also need to be prioritised, and new applications such as in telemedicine may require prioritisation in order to perform life-saving functions. Where e-mail correspondence or certain types of streaming are concerned, this is far less important, i.e. these services do not need to be prioritised. Strict net neutrality would prevent this necessary prioritisation and thus also the development of new services and applications, slowing down innovation and technological advances.
- So-called Content Delivery Networks (CDN) offer Content and Application Providers (CAP) a guaranteed transmission quality for a fee and as such prioritised data transport. Larger CAP like Google, Microsoft, Facebook and others build their own networks, ensuring high-quality data transport themselves. Those who cannot afford the services of a CDN or their own network have to rely on the now standard transport routes (peering and transit), which work according to the best effort principle. As the name suggests, this means that services cannot guarantee a specific quality of data transfer.

Not all data on the Internet is or should therefore be treated equally, which is how the term net neutrality could be interpreted. However, the Internet must remain open. The undersigned network operators are committed to this principle.

Regarding the promises 1) and 2)

In line with applicable legislation,

- 1) within the scope of their customer contract, Internet users are entitled to an Internet connection which enables them**

- **to send and receive content of their choice;**
- **to use services and applications of their choice;**
- **to use suitable hardware and software of their choice.**

2) the undersigned network operators do not block any Internet services and applications and restrict neither the freedom of information nor the freedom of expression.

In the debate surrounding net neutrality, fears are repeatedly raised that network operators could block certain services and applications (and thus might give preference to their own services) and thus ultimately violate their freedom of information and freedom of expression. In order to allay these fears, the undersigned network operators make the above-mentioned promise.

This promise of course does not justify illegal or damaging use of the Internet connection or the use of hardware and software which could damage the network or other Internet users. If a network operator delivers certain hardware or software together with the Internet connection, these may be used for access to the Internet. The customer may nonetheless use other suitable hardware or software on his or her own responsibility.

Any necessary network management measures, which are legally prescribed or ordered by a court and measures which meet customer requirements and encourage innovation must however remain possible. These include traffic management techniques in operators' own networks which are particularly aimed at

- blocking activities which damage the network,
- complying with official decrees,
- guaranteeing the service quality of specific applications which require it and for which, in the case of third-party providers, measures with respect to quality assurance can be agreed upon,
- combating special situations of temporary network overload,
- prioritising traffic on a user's individual connection at the user's request, or
- complying with contractually agreed usage limits.

The Internet should also in future permit innovative business models and allow offers that meet the individual needs of customers and treat individual services separately from a pricing or network-management perspective. In particular, in agreement with the customer, Internet access should be configurable to the extent that certain services with agreed-upon data limits are not included or that certain services are available only with reduced transmission capacity or with data limits. It should be possible to present such individual offers to the customer at attractive terms.

Regarding promise 3)

Internet users can inform themselves of their Internet access capacity.

In the debate surrounding net neutrality, the claim is made that the network operators give preference to their own services, e.g. Swisscom TV, by prioritising those services and therefore limit the capacity available to customers for accessing other Internet services.

Prioritising managed services, e.g. Swisscom TV, only occurs in rare cases where the capacity of the connection cable is insufficient to manage all Internet traffic. As explained above, this measure must be possible in such cases, otherwise the quality guaranteed to customers and paid for by them cannot be guaranteed. Nevertheless, customers should be able to ask their Internet service provider about their Internet access capacity and also whether and to what extent the capacity available through their Internet connection is shared with others as Internet services.¹

This promise refers primarily to the fixed network. The capacity of Internet access via mobile telephony depends on several factors, namely on the technology available at the location – which is of course information which can be provided by mobile providers – and on how many users are sharing a mobile radio cell at a certain point in time. There are now also mobile phone apps available with which users can inform themselves of the capacity available at the present time. However, this available capacity can change very quickly if other users log in to or log out of the mobile radio cell.

Regarding the arbitration board:

The undersigned network operators will set up an arbitration board. Internet users can appeal to this arbitration board if they are of the opinion that their Internet service provider (which is also a signatory to this Code of Conduct) has breached this Code of Conduct and prior discussions with the Internet service provider have not led to any resolution of the dispute. The arbitration board will act as an intermediary between the parties and may issue a recommendation. It will continuously evaluate the Code of Conduct and its effects on the openness of the Internet and issue a report on an annual basis.

The arbitration board is independent of the network operators and is neutral.

¹ For Swisscom customers: fixed network DSL at <http://www.swisscom.ch/de/res/hilfe/loesung/speedtest-fuer-die-dsl-geschwindigkeit.html> , Mobile users with the cnlab app at http://www.cnlab.ch/speedtest/index_mobile.jsp and general, transparent with other providers: <http://www.cnlab.ch/speedtest/> , statistics at <http://www.cnlab.ch/speedtest/stats.jsp>

No breaches of net neutrality in Switzerland

It has been claimed for instance that certain products such as Orange's Zattoo and Spotify or Swisscom's TV air would violate net neutrality, because the data consumption of these services is not included in any applicable data caps. It has been alleged that this would disadvantage other music-streaming and Internet TV services such as Wilmaa or Teleboy. These claims are unfounded. Unlike at Wilmaa or Teleboy, the customer at Zattoo, Spotify and Swisscom TV air pays for these services and data volumes either directly through the subscription or indirectly through the contract for a higher-end service bundle. Moreover, there are also products from the same providers without inclusive services or free offers such as Swisscom TV air easy, but for which the data consumption is included in the data volume and which shows advertising. The same applies to the mobile phone subscription sunrise 24, which has certain limitations, but in turn is less expensive than other Sunrise mobile phone subscriptions.

It has also been said that Sunrise's and Swisscom's TV products breach net neutrality because Internet access is throttled while these services are being used. As described above, prioritising only occurs in rare cases where the capacity of the connection cable is insufficient to manage all Internet traffic. This measure must be possible in such cases, because otherwise the quality guaranteed to customers and paid for by them cannot be guaranteed. Moreover, customers could easily choose Internet television services such as Zattoo, Wilmaa or Teleboy, which are free in standard definition.

All the offerings mentioned are described transparently and the customer in these cases knowingly chooses a product tailored to him or her. One thing all of these products have in common is that they were created to attract customers in this competitive market and are thus an attempt to secure the companies' survival. They survive because they satisfy a need of the customer. Wanting to introduce a ban on these products due to an alleged breach of a misconceived net neutrality means limiting design options and diversity. However, this would also make many innovations impossible and weaken competition. The existing network and service competition provides a guarantee that the Internet will remain open. Any service provider which blocks certain services or applications wanted by users will lose customers to the competition and therefore needs to quickly rethink its strategy.