



SUISSEDIGITAL



## Net neutrality: Code of Conduct

The undersigned network operators are committed to an open Internet.

*What do the network operators mean by that?*

This Code of Conduct contains rules which ensure an **open Internet** in Switzerland. The openness of the Internet means that all involved parties, i.e. Internet users, content and service providers, Internet access service providers and network operators should be able to move and operate freely on the Internet. In this way, the Internet can maintain and expand its function as a platform for innovation and its role in the digitisation of society.

They are committed to the following principles in accordance with the applicable laws:

1) ***Within the scope of their customer contract, Internet users are entitled to Internet access which enables them:***

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

This 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.

*What do the network operators mean by that?*

First and foremost, an open Internet means **access** to the Internet. To this end, the customers sign a contract with an Internet access service provider of their choice. The contract stipulates the conditions, i.e. the subscribed speed, the data volumes or a combination of data volumes and speed. Customers should have the opportunity to choose from a **variety of different offers and options**. In the future, the Internet should therefore also permit innovative business models and offers that take the individual needs of customers into consideration. Individual services can be treated separately from a pricing or network capacity perspective. In particular, **in agreement with the customer**, it should be possible for Internet access to be configured such that certain services with contractually agreed data limits are not charged (zero rating, also referred to as sponsored data) or that certain services are only available with reduced transmission capacity and/or data limits. The conditions and details of the offers will be communicated to the customer clearly and transparently in advance.

Legal (criminal) provisions are the responsibility of the user who must comply with these. Network operators can prevent illegal or damaging use.

**2) No Internet services or applications will be blocked or disabled. Freedom of information and freedom of expression shall in no way be restricted.**

Traffic management measures are permitted which serve to

- block activities which can damage the network,
- ensure compliance with official directives and decrees,
- combat temporary network overloads,
- guarantee the quality, desired and paid for by the customers, of telephony, TV or other services such as video conferences, the Internet of Things, etc. (so-called “managed services”),
- prioritise the traffic on the user’s line in accordance with his contract and apply the user limits and conditions stipulated in the contract.

These traffic management measures ensure demand-driven operation of the infrastructure and should not impede either innovation on the Internet or the fulfilment of customer needs. The undersigned will regularly check the measures implemented by them as stipulated by the Code of Conduct and, where necessary, adapt them to any technical and economic developments.

*What do the network operators mean by that?*

To ensure the proper functioning of the Internet and optimum use of the existing network capacities, **traffic management measures are necessary**. These are intended to

- block activities which can damage the network: these include wilful activities such as botnets<sup>1</sup> (computers infected with malware) and denial-of-service<sup>2</sup> attacks as well as the use of hardware which does not function on the TSP’s network.
- ensure compliance with official directives and rulings: this includes requests based on the agreement with the Cybercrime Coordination Unit Switzerland (CYCO) to block access to certain websites (child pornography).
- combat temporary network overloads: in situations of temporary overload, all data packages are stuck in a traffic jam. The delivery of the data packages to the destination is delayed accordingly. So that the quality of time-critical services in particular can continue to be guaranteed, such data packages can be prioritised in the network above a defined threshold (generally 80% capacity utilisation). This allows a stable traffic flow to be guaranteed. All other services are also provided in accordance with the “best effort” principle, although they may be subject to a delay in the event of a network overload.
- ensure the quality desired and paid for by the customer: services where the quality is guaranteed by network operators are called QoS (quality of service) services or managed

<sup>1</sup> A botnet is a group of automated computer programs. Operators of illegal botnets install the programs on computers without the owners’ knowledge and use them for their own purposes (see <https://en.wikipedia.org/wiki/Botnet>).

<sup>2</sup> **Denial-of-service (DoS)**[https://en.wikipedia.org/wiki/English\\_language](https://en.wikipedia.org/wiki/English_language) refers to the non-availability of a service which should really be available. Although there may be several reasons for non-availability, DoS is generally referred to as the consequence of an overload of infrastructure systems. This can be caused by accidental overloads or by a wilful and often intentional attack on a server, a computer or other components in a data network (see [https://en.wikipedia.org/wiki/Denial-of-service\\_attack](https://en.wikipedia.org/wiki/Denial-of-service_attack)).

services. Managed services may refer to time-critical applications such as IP voice services (VoIP) or live TV. These services differ from the usual “best-effort” services. Best-effort services may arrive late in the event of a network overload. To limit the transmission time lag to an absolute minimum (a few milliseconds), continuous traffic management is required. Certain quality requirements are also prescribed by law with regard to the provision of a public telephone service and transmission of television programmes. Whether prioritisation will also enable the Internet to provide appropriate quality services in the future is unclear from today’s perspective and will ultimately be determined by technical development and market needs. Full use should be made of the great future potential of both Internet services and QoS services. To this end, these services must be controlled using the requisite traffic management.

- prioritise the user’s line: prioritise traffic on a user’s individual connection at the user’s request: insofar as it is technically feasible, customers should be able to decide whether or not they wish a certain service to be prioritised.
- apply contractual user limits and other contractual conditions: if, for example, the customer has exhausted the contractually agreed data volumes, the data subsequently accessed by the customer will be transferred at reduced speed.

### **3) Internet users can obtain information about their Internet access capacity, the traffic management measures used and any network disturbances (transparency).**

Internet users can obtain information from their Internet access service provider concerning

- the extent to which different managed services share the available capacity (bandwidth) of their Internet connection,
- whether and what kind of traffic management measures are used,
- whether network disturbances are present.

*What do the service operators mean by that?*

The Internet protocol (IP) is currently the principal data transfer technology used in the telecommunications industry. “All IP” means that IP technology allows not only Internet services to be transmitted as in the past, but also, for example, telephony (public telephone service) and television (IP TV). Consequently, all services transmitted using IP technology share the capacity of the customer’s connection cable.

For the undersigned network operators, it is important that their customers enjoy total transparency about which of their own and any external services will be prioritised or controlled by the network operator. The undersigned network operators will indicate, in the appropriate places on their websites, which types of traffic management measures are employed, insofar as they are not compelled to secrecy due to competition considerations or other overriding reasons.

Customers should therefore be able to ask their Internet access 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. This promise primarily relates to the fixed network. The capacity of Internet access via mobile phone depends on several factors, namely on

the technology available at the location – information on which can be provided by mobile providers – and on how many users are sharing a mobile radio cell at a certain point in time.

The undersigned network operators will notify their customers by suitable means of any network disturbances so that the customer can determine whether unsatisfactory access to one or all Internet services and applications can be ascribed to disturbances on the Internet access service provider's network.

**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 access service provider has breached this Code of Conduct and prior discussions with the Internet access service provider have not led to any resolution of the dispute. The arbitration board acts as an intermediary between the parties and may issue a recommendation. It will continuously evaluate the Code of Conduct and its impact on the openness of the Internet and issue a report on an annual basis.

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