

BIX Charter
Rules of operation and use of BIX

Last modified: by the ISzT General Meeting on 12 December 2017

Effective as of 1st January 2018

1. The overall purpose of the BIX (**B**udapest **I**nternet **E**xchange) is to prevent the Hungarian and regional internet traffic between the different internet service providers from overloading the international connections of the internet service providers and to provide a platform for exchanging IP based traffic between different internet service providers.
2. Terms
 - a) *BIX*: is a network system distributed geographically, which consists of *BIX service access points* and data transmission connections connecting them. Users of the BIX - the *BIX members* - can connect their own networks at the BIX service access points.
 - b) *BIX member*: an internet service provider connected to the BIX with its own network via a BIX service access point (using the proper device or data transmission connection). A BIX member can only be an internet service provider that fulfils the requirements defined in Section 3 and accepts and adheres to the rules of the operation and use of the BIX defined hereunder. Regarding the connection to the BIX, BIX members may at their own discretion select their BIX service access points.
 - c) *BIX operator*: BIX is operated by Internet Szolgáltatók Tanácsa (full name: Magyarországi Internet Szolgáltatók Tanácsa - Council of Hungarian Internet Service Providers, address: 1132 Budapest, Victor Hugo u. 18-22.), hereinafter: IszT. BIX operator qualifies as an electronic telecommunication service provider duly registered in the public records of the National Media and Communications Authority under Act C of 2003 on electronic communication (hereinafter: Eht.).
 - d) *BIX Committee*: a body within the framework of IszT, which sets the rules of using the BIX and supervises its operation. Members of the BIX Committee are those IszT members who are also BIX members at the same time. Each member of the BIX Committee has one vote. The chairman of the BIX Committee is elected by the General Assembly of IszT every year. It is the duty of the chairman to coordinate the activities of the BIX Committee, to convene Committee meetings and to administer membership application procedures. All BIX members are entitled to join the open meetings of the BIX Committee.
 - e) *BIX service*: Service provided by the BIX service provider to the BIX members connecting the network of the BIX members to the BIX internet exchange. Conditions of the BIX service not regulated in this document are subject to the separate BIX service agreement between the BIX service provider and the BIX member.
 - f) *BIX basic fee service*: 1 x endpoint of optical patchcord of maximum 12 strands (as per Point 2/e) in the BIC Optical distribution cabinet

- g) *BIC service basic fee*: the annual lump-sum flat fee payable by the BIX contracting party during the term of the contract, which enables the use of the basic services
- h) *BIX service fee*: the amount due for any additional service beyond the BIX basic fee service.

3. Eligibility requirements concerning BIX membership

- a) Any service provider is entitled to BIX membership if:
 - They have their own AS Number and IP address domain and the related objects in the RIPE Database (aut-num, inetnum, inet6num, route, route6).

 - Service providers conforming to these requirements are eligible for a simplified membership application procedure. The requirements must be met continuously. Eligibility is checked at half year intervals and membership can be cancelled in case of not conforming to the requirements.
- b) Furthermore, a provider is eligible for BIX membership if the application - justified by special reasons - is approved by the BIX Committee during the General Assembly of ISzT by a majority vote. The decision of the special judgment details the duration and the conditions of the special membership.
- c) In case of special obligation by law an "authority specific" service can be provided to the authorized organization. The terms of this service may be different than those of the general BIX services.

4. Traffic exchanging (peering) categories and services

Every BIX member is free to decide how to exchange traffic with other BIX members, whereby based on the exchanging of traffic the following categories may be chosen:

- a) **Open/Free peering**: Unlimited and mutually free peering with other BIX members. Members of the "Open/Free peering" category shall observe the following:
 - I. BIX members shall use the BIX Route servers.
 - II. If any BIX member is requested by another BIX member (regardless of category) to provide free peering within Hungary, then the BIX member shall be obliged to comply, except that:
 - i. the BIX member is not obliged to peer through its own BIX with any user of its own IP-Transit service, or
 - ii. the BIX member is not obliged to peer through its own BIX with members whom it has a private peering connection with.
- b) **Selective peering**: peering with other BIX members based on request of the other BIX member using a case-by-case decision.
- c) **Restrictive peering**: The BIX member would not like to receive peering requests, peering with other BIX members only by own initiative.

- d) **Optical connection (crossconnect):** Directo connection of two BIX members on the same optical distribution board of BIX (an existing patch panel) through patch cables.
- e) **Endpoint of optical patchchord:** Endpoint of n x 12-strand monomode optical cable in the BIX distribution cabinet, for which the BIX side patch panel is provided by BIX.
- f) **10G Ethernet data transmission:** Ethernet based data transmission service set up between two BIX nodes. A maximum of 1 VLAN and a maximum of 10 MAC addresses may be used on a protected data transmission pathway.
- g) **Wavelength service:** Optical wavelength service set up between two BIX nodes. Provision of passive wavelength along a non-protected optical pathway according to ITU C-Band 100 GHz. The required DWDM optical (1G or 10G) modules are provided by the BIX member.
- h) **Dual Wavelength service:** Optical wavelength service set upt between two BIX nodes. Provision of passive wavelength along two non-protected optical pathways according to ITU C-Band 100 GHz. The required DWDM optical (1G or 10G) modules are provided by the BIX member.

5. BIX service fees

- a) The BIX service fees are proposed by the BIX Committee.
- b) The BIX service fee consists of the annual basic fee and the service fee due for any services used in addition to the basic service.
- c) The current BIX service fees are published in the Appendix "BIX Fees".
- d) In line with the basic BIX policy the BIX Committee encourages the free and unlimited peering of the domestic traffic. BIX members willing to offer free peering pay the fees of the Open/Free peering category.
- e) BIX offers discounted fees for additional BIX peering connections, that can be the following:
 - I. Additional BIX peering port, at the BIX service point identical with the active port.
 Additional peering port, as part of the active AG (Link Aggregation Group - combining a number of ports for higher bandwidth) - in this case the number of additional ports may not exceed the number of active ports.
 - II. Additional BIX peering port, at a BIX service point other than the active port.

6. Suspension or transfer of BIX service

- I. BIX service may be temporarily suspended, or suspension may be terminated - for each port - from the first day of the month following the request. A monthly fee is payable after each suspended BIX port.

- II. Existing BIX ports may only be transferred to other BIX members. A one-off administration fee is payable for each transferred BIX port. Both the transferor and the recipient need to make a clear declaration to confirm the transfer.

7. Technical requirements concerning BIX connections

- a) BIX members can connect to the BIX Ethernet switches via a router or a Layer3 switch for which the ports are set for Layer3 mode.
- b) Only transparent, Layer1 or Layer 2 (e.g.: optical fibre pair, EoDWDM, EoMPLS) data transmission is allowed between the Ethernet switch and tag the router of BIX, Layer 2 connection (e.g.: via VPLS, VLAN Layer2 switch) is not allowed.
- c) One MAC is allowed to be used at one port of the BIX switch (per VLAN). At BIX only ARP, IPv4, and IPv6 is allowed as a Layer2/3 protocol, the usage of other protocols (e.g.: CDP, LLDP, Spanning-Tree) is forbidden.
- d) One member may be connected to BIX via several ports and/or BIX service points.
- e) BIX itself is a geographically distributed system. The distributed system consists of BIX service access points, connected to each other with direct layer 2 (data connection level) connections with backup. BIX members can connect to BIX using the interfaces of BIX Ethernet switch(es) located at BIX service access points. The optical transceiver (corresponding to the selected connection type) at the BIX switch is part of the BIX service. The BIX member is obliged - at its own expense - to ensure that its connecting interface is compatible with the selected connection type. Members have to use optical cable connection to the BIX service access points, copper cable connections are not allowed.
- f) Only BGP4 external routing protocol can be used on BIX. The possession of a valid, registered AS number by the service provider and the internet accessibility of networks that are going to be advertised are prerequisites of BIX membership.
- g) IP addresses used on BIX shall be allocated from an independent address block dedicated to this purpose. Addresses are allocated by the BIX service provider.
- h) There are route servers in operation on BIX, based on the information located in the RIPE objects (route, aut-num).
- i) The BIX member is obliged to maintain the RIPE object entries according to the actual situation.
- j) The BIX member is entitled to advertise on BIX only networks that fall
 - within its own address range,
 - within the address range of its customers,
 - within the address range of its backup partners.

The advertisements must be aligned with the RIPE entries.

- k) The BIX member may forward to BIX only IP packages with source addresses that can also be advertised by that member. In order to ensure this, the BIX member is obliged to

apply properly set filters in its routers.

8. Traffic of the Ethernet switches operated at the BIX service access points is measured and supervised by the BIX service provider, the traffic information is made available to the public on the BIX website.
9. In order fulfil its legal obligations, BIX operator, as an electronic telecommunication service provider undertakes the followings:
 - a) ensures uniform operation of the BIX network and cooperation with BIX members in good faith providing equal opportunities, and ensuring access to the necessary technical data;
 - b) cooperates in preparing the technical, contractual and economic framework facilitating the common usage of the electronic telecommunication structures;
 - c) ensures network security against unauthorized access;
 - d) cooperates with other service providers in emergency periods according to the provisions of the relevant legal regulations
 - e) complies with and ensures compliance with the regulations regarding the usage of the site and the property as well as the legal regulations regarding the protection of the environment, life, physical integrity, protection of health and exposure to electromagnetic fields;
 - f) undertakes to use any business secret obtained in connection with the individual contracts exclusively in relation to the service provision and may not disclose any business secret to other parties or divisions to gain unfair competitive advantage.

Emergency period means a period from the start date of the special legal order until its termination, in accordance with situations specified in clause 48-54 of the Hungarian Constitution (state of national crisis, state of emergency, preventive protection measures, terrorist threat, unexpected attack, danger).

10. BIX service provider commits to provide any kind of assistance and contribution - within reasonable frames of the technical possibilities - to the BIX member in order to implement the access to the equipment installed on BIX using the telecommunication solution owned by or available to the BIX member, including access to the building (cable, antenna) and the establishment of the admission within the building (the related expenses must be compensated by the member).
11. The right for BIX membership (or losing such rights) is investigated and determined by the BIX Committee. It is also investigated and identified by the BIX Committee, which conditions are met by the members and whether they adhere to the rules. An appeal against the resolution of the BIX Committee is to be submitted to the IszT General Assembly, which investigates the justification of the resolution.
12. Applications for the BIX membership can be submitted in writing to the BIX Committee

(posted or electronically, using the bix@iszt.hu e-mail address). All certifications and information making possible the resolution of the Committee regarding the rights of the applicant must be enclosed. The application - if conditions of the simplified procedure are met - is approved by the BIX Committee on-line: the application is forwarded to the BIX members for comments or questions within a week. If there are no questions or the answers are satisfactory, the Chairman of the BIX Committee notifies the applicant and the prospective member can proceed by signing the BIX service contract with the BIX service provider. Applications not eligible for the simplified procedure will be discussed at the next General Assembly of ISzT.

13. In case if - after multiple notices - the BIX member does not adhere to the rules set forth, then the BIX Committee conducts an investigation and after considering all circumstances (does the breach of the rules occur by the negligence of the BIX member or it is due to external reasons; is the breach a first instance or it occurs repeatedly, etc.) the BIX service provider may bind the BIX member to pay an extra charge (between HUF 100,000.00 and 500,000.00 not including VAT). In very serious cases the right of BIX membership shall be revoked.
14. Access of BIX members causing continued operational disturbances or failures of the BIX operation can be restricted by the BIX service provider without prior notice. The BIX service provider must notify the restricted BIX members about the fact of and reasons for the restriction within 24 hours.
15. BIX members are obliged to:
 - a) publish a public e-mail address on the BIX web site to receive error messages from the BIX members and BIX service provider. BIX member is obliged to reply the error messages sent to its e-mail address within 24 hours,
 - b) provide an emergency telephone number to the BIX service provider, available 24 hours a day.
16. BIX members may attend the sessions of the BIX Committee held periodically.
17. Peering connections established on BIX are regarded by BIX members as effective peering connections based on mutual agreement.
18. Data protection requirements:
 - a) As BIX service is not considered to be public electronic telecommunication service, BIX operator declares that it does not fall within the scope of Decree 4/2012. (I. 24.) of the National Media and Infocommunications Authority on data protection and confidentiality obligation, special conditions of data management and confidentiality, safety and integrity of networks and services, management of traffic and invoicing data and regulations on calling line identification and call forwarding applicable to electronic telecommunication services.
 - b) BIX operator declares that it exclusively handles the data of BIX members strictly necessary for the provision of BIX services and included in specific contracts. Data

is stored various ways (machine processing and/or paper-based storage). Data may be managed until the termination of the time limitation of claims arising out of the legal regulations according to the civil law, that is 5 years following the termination of the contract. The legal ground of data management is the prescribed by the law, based on the approval of the party concerned and the implementation of the contractual obligations. The exact legal regulation regulating data management: Act C of 2003 on electronic telecommunication.

- c) BIX operator may forward any fact, data or information related to a BIX member or the service provided to the BIX member exclusively in order to comply with the relevant legal regulations and the legal obligations specified in clause 17.
- d) BIX operator declares that data management is carried out in compliance with the data protection requirements of the effective legal regulations. In order to ensure this, technical and organisational measures are taken to guarantee the safety of the BIX service and the protection of the data of BIX members managed during the service provision. The safety of the service includes the safety of the data management related to the service.
- e) BIX operator declares that it considers any business information related to the BIX member and obtained during the provision of the BIX service as a business secret and may not disclose it to any third party or use it either for its own purposes or the interests of any third party.
- f) The person concerned may require information about the personal data managed by BIX operator as well as the relevant data management process and may also ask modification, correction or deletion of such data. BIX operator shall perform any request to delete data without delay, unless it is obligated to manage the data according to the provisions of the relevant legal regulation.

19. In order fulfil its legal obligations specified in Section 92-92/C of the Act on Electronic Communications, BIX operator, as an electronic telecommunication service provider, undertakes the followings:

- a. cooperates with the competent authorities to support secret information collection and data acquisition, in case of an emergency period or for the interest of national defence.
 - BIX operator is obliged to cooperate with organizations authorized by a specific law to perform secret information collection or data acquisition. BIX operator shall perform its electronic telecommunication activity without excluding or impeding secret information collection or data acquisition.
 - BIX operator shall inform directly the Special Service for National Security about any activity, service, product or any relevant changes related to them, that can affect or during the normal operation, influence the conditions, instruments, methods or procedures provided by or the provision of with falls within the scope of electronic telecommunication service provider for the collection of confidential information or acquisition of confidential data.

- BIX operator shall ensure the conditions to use the tools and methods required to access messages and other communication transferred in the electronic telecommunication network as well as the confidential data managed by the service provider with methods used for secret information collection and data acquisition. Furthermore, BIX operator shall ensure the tools to be used to the exit point in case of new services launched, to the extent necessary for secret information collection and data acquisition.
 - BIX operator shall install a technical system - especially a monitoring subsystem - appropriate for the BIX service in accordance with the requirements specified above and ensure access in the network to the Special Service for National Security to the exit point within six months following the acquisition of the written information regarding the basic technical requirements.
 - Upon special request, BIX operator shall provide a service to organisations having an authorization for secret information collection and data acquisition.
- b. cooperates with the competent authorities to ensure inaccessibility of the electronic data temporarily and permanently.
- Upon notification sent by the Authority, BIX operator shall ensure temporary or permanent inaccessibility of the data disclosed via the electronic telecommunication network upon the order of the court in connection with a criminal case or an authority regulated by a specific law to prevent access to such data, without delay but no later than within one day following such notification.
 - BIX operator shall inform any BIX member about the legal grounds of temporary or permanent inaccessibility of the content.
- c. cooperates with the incident management centre of the government.

BIX operator shall cooperate with the incident management centre of the government for the performance of the tasks covered by Act on the safety of electronic information of the state and local government bodies. BIX operator shall inform the incident management centre of the government in case of any event affecting the BIX system, or any threat it becomes aware of.

19. The following Appendices are an integral part of the present Charter:

Appendix 1 – Network Use Policy supported by ISZT

Document entitled (AUP - Acceptable Use Policy)
<http://www.iszt.hu/iszt/egyebek/aup.html>

Appendix 2 - BIX Fees

Appendix 1:

Network Use Policy supported by ISZT supported by ISZT (AUP – Acceptable Use Policy)

V1.1. Last updated: 9th April 2013

1. The role of Acceptable Use Policy

The present Acceptable Use Policy (AUP or Guidelines) is a set of the most important conventions adopted by the Internet Service Providers all over the world. These rules do not merely contain the recommendations concerning the attitude and behaviour described in the documents entitled „Netiquette” but they prescribe so strict demands the keeping of which shall be upheld by vindicatory sanctions.

The Acceptable Use Policy serve for the safeguard of clients using the services regularly by safeguarding the user and provider as well as its network and service against the spiteful, uneducated or perhaps neglectful users.

ISZT (Council of Hungarian Internet Providers) strongly offer to all of the Internet Providers to require of their clients to keep the Acceptable Use Policy moreover it is recommended by ISZT that the present Acceptable Use Policy is included in the General Conditions of Contract of Providers.

In case of violating the rules of Acceptable Use Policy, it is recommended for the users to inform their providers about this fact by sending their information to the following e-mail address: *abuse@<providername>.hu* proposed to maintain for this special purpose.

2. The use of Acceptable Use Policy

The fundamental principle of applying the Guidelines is that the severity of vindicatory sanction shall correspond to the severity of fault: a warning can be the first sanction, it can be followed by the cessation of services in case of a repeated infraction of the rules and finally the services shall be terminated.

3. General Guidelines

- 3.1. Provider has the right to terminate the service promptly without any notice in case if the Policy of Provider is violated by the activity of any of the clients. When experiencing an abusive behaviour, Provider usually prefers informing and warning the clients and warns them of stopping their illegitimate activities. However the services can promptly be suspended or terminated in case if the Policy and Rules are seriously violated and prompt damages are caused by this action.
- 3.2. It can never be considered a waiver of the rights from Provider's part if Provider fails or is backward in enforcing its requirements and the prescriptions of Guidelines.
- 3.3. It is prohibited to use the services such a way that violates any laws, rules, standards, international agreements and tariffs.
- 3.4. It is prohibited to violate the rules or guidelines of any networks, servers, websites, data-bases or Internet Providers (including the free services as well) that can be accessed by the client through the network of Provider.
- 3.5. It is prohibited to use the service for defamation and for the purpose of performing

incorrect, abusive, obscene, aggressive or false activities.

- 3.6. The threatening, inconveniencing, insulting and terrorizing of other persons is forbidden.
- 3.7. It is prohibited to attack, weaken or impair the safety of any of the computers or computer-networks and to use the legitimacy of other users in an illegitimate way. It is prohibited to gain or try to gain unauthorized access to any of the Internet endpoints or to any of the network device.
It is prohibited to disturb the operation of any of the Internet endpoints or network devices moreover the intentional overloading of network (Denial of Service) from or by using the network of Provider is not allowed.
- 3.8. It is prohibited to prevent other users from using the services provided by the Provider.
- 3.9. It is prohibited to use the network for transmitting copyrighted documents if the copyright of other persons is violated during the transmission (e.g. the transmission of pirate software is not allowed).
- 3.10. The intentional propagation of computer viruses and worms as well as the activity of threatening by the propagation are not allowed.
- 3.11. Any activities carried by any persons on the network of Provider violating the rules shall mean the violation of Guidelines and it can result in the prompt suspension or termination of service.
- 3.12. No one user is allowed to collect data about the other user, about the information communicated by him/her without the prior consent of the concerned user.
- 3.13. Clients are not allowed to observe and listen in the data proceeding through the network (sniffing).
In certain cases (e.g. when handling safety incidents or in order to eliminate the technical deficiencies), Provider is entitled to observe such a traffic but the obtained information can exclusively be used for realizing the original aim (e.g. for preventing hacking or for the elimination of deficiencies).
At the same time, Provider logs regularly certain information concerning the data traffic of users for billing and safety reasons but the obtained information recorded in the log is allowed to use exclusively for realizing the original aim.

4. Guidelines concerning electronic mail

- 4.1. It is prohibited to use the network or servers of Provider for sending spam (extensive mails, high quantity of mails or unrequested commercial messages). Among others, the commercial advertisements, informative messages, caritative requests, collection of signatures and political or religious leaflets belong to this category. Messages of similar content are allowed to send only in case if this action is explicitly requested by anybody (see: Public Act on Electronic Commerce).
- 4.2. It is prohibited to use the network or servers of Provider for collecting replies to unrequested, high quantity or commercial electronic mails. It is prohibited to advertise any services used on the network of Provider or provided by a client in a way described in Point 4.1.
- 4.3. It is prohibited to forge, respectively change or remove the header of an electronic

mail for deceiving purposes. However – in spite of this ban - the address of sender is altered by a lot of people sending viruses, worms or spam, therefore it is prohibited to send an automatic warning to the sender or addressee concerning the removal or disposal of viruses, worms or spam if the sender or addresser is not the own client of Provider.

- 4.4. It is prohibited to send a lot of copies of mails having identical or similar content. In addition, it is not allowed to send extremely long messages or files to an addressee with the intention of disabling the user's access (mail bombing).
- 4.5. Without the prior consent of addressee, it is prohibited to send or forward chain letters (i.e. messages in which the addressee is requested to send the message to other users) or similar messages independent of the fact if these messages contain application for money or for other values and independent of the fact if the addressees request to receive such mails or not.
- 4.6. The network and servers of Provider A must not be used for receiving replies answering to mails sent from Provider B the content of which violates the Guidelines prescribed by the Provider A or B.
- 4.7. In case if a user uses the service of an other Internet Provider for advertising a webpage placed at that certain Provider, he/she is obliged to use the advertisement methods corresponding to the prescriptions of Guidelines.

5. Guidelines relating to contacts

The client shall denominate one or more contact persons („contact person”) who are responsible for all the computers, computer-networks or sub-networks linked to the Internet by the service offered by Provider. Before configuring the network connection, client shall give the contact persons' names, telephone-numbers, postal- and e-mail addresses („contact” information). The „contact” information shall be up-to-date and exact at any time therefore the service representative of Provider shall promptly be informed about the incidental changes. The contracting party bears the responsibility of damages arising owing to the improper and outdated information.

The contact person shall have the suitable devices, access-possibility and authority to configure and operate the systems of contracting party and/or to restrict the access to them.

6. Guidelines relating to shared resources

The Internet service of a Provider is based on shared resources. The excessive use or abuse of these resources (i.e. the use of these resources beyond measure) by even one subscriber can have a negative effect on all of the other users. The abuses of network resources can decrease the throughput of network and are contrary to the Guidelines. These abuses can result in the suspension or termination of service.

7. Installation of an Open Recursive Name Server

The clients must ensure that in case they wish to operate a name server on their own, the technical personnel operating it is familiar with the global DNS. Moreover, they will

operate it in such a manner that they will not endanger, not even by negligence, the functioning of the DNS. Such a threat is the operation of an open (i.e. available to anyone) recursive name server, that allows a possible attacker to make the services of a third party unavailable (DoS, i.e. Denial of Service attack). This threat is even more serious if the client's name server is DNSSEC capable. Therefore the client must ensure that they operate an Open Resolver only if they can guarantee that they are able to apply measures to filter out such attacks and they provide a point of contact for such cases, and treat these requests as a matter of urgency. Besides, the clients must inform in advance their access provider of such an intention to operate an Open Recursive Name Server and they must co-operate with them closely during the operation.

8. Amendment of the Acceptable Use Policy

Provider is entitled to actualize the Guidelines or change the conditions of contract in accordance with the actualized Guidelines but Provider is obliged to publish the authoritative text on the page indicated in advance (preferably it can be the „General Conditions of Contract“ as well as a webpage).

Appendix 2: BIX Fees

(valid as of 1st January 2018)

a) BIX fees in HUF

BIX service basic fee: HUF 120,000 / year

BIX peering Port/ service	Active port monthly fee with Open/Free peering ⁽¹⁾	Active port monthly fee with Selective/Restrictive peering ⁽¹⁾	Setup fee (one-time fee) ⁽²⁾
1 Gbps	25 000 Ft ⁽⁷⁾	40 000 Ft	30 000 Ft
4 Gbps (for 10 Gbps port)	90 000 Ft	144 000 Ft	0 Ft ⁽⁴⁾
10 Gbps (first 3 ports)	140 000 Ft	224 000 Ft	0 Ft ⁽⁴⁾
10 Gbps further ports ⁽⁵⁾	90 000 Ft	144 000 Ft	0 Ft ⁽⁴⁾
40 Gbps	475 000 Ft	760 000 Ft	500 000 Ft
40 Gbps ⁽³⁾ (on 100 Gbps port)	475 000 Ft	760 000 Ft	to be discussed
80 Gbps or 90 Gbps or 100 Gbps ⁽⁵⁾ (on 10 Gbps ports)	840 000 Ft	1 344 000 Ft	0 Ft ⁽⁴⁾
100 Gbps ⁽⁶⁾	840 000 Ft	1 344 000 Ft	0 Ft ⁽⁶⁾
Private VLAN	HUF 10 000/ VLAN / year		HUF 10 000

Fees for auxiliary services

Description	Monthly fee	Setup fee (one-time fee) ^(c)
10G Ethernet data transmission	100 000 Ft	0 Ft ⁽⁴⁾
Wavelength service	75 000 Ft/month	75 000 Ft
Dupla Wavelength service	120 000 Ft/ month	150 000 Ft
Optical connection (crossconnect) within BIX optical distribution board	free	24 000 Ft
Endpoint of optical patchchord in BIX optical distribution board (12 monomode strands	free	150 000 Ft

b) BIX fees in EUR

BIX service basic fee: EUR 400/year

BIX peering Port/ service	Active port monthly fee with Open/Free peering ⁽¹⁾	Active port monthly fee with Selective/Restrictive peering ⁽¹⁾	Setup fee (one-time fee) ⁽²⁾
1 Gbps	EUR 84 ⁽⁷⁾	EUR 135	EUR 99
4 Gbps (for 10 Gbps port)	EUR 300	EUR 480	EUR 0 ⁽⁴⁾
10 Gbps (first 3 ports)	EUR 468	EUR 749	EUR 0 ⁽⁴⁾
10 Gbps further ports ⁽⁵⁾	EUR 300	EUR 480	EUR 0 ⁽⁴⁾
40 Gbps	EUR 1 584	EUR 2 535	EUR 1 650
40 Gbps ⁽³⁾ (on 100 Gbps port)	EUR 1 584	EUR 2 535	to be discussed
80 Gbps or 90 Gbps or 100 Gbps ⁽⁵⁾ (on 10 Gbps ports)	EUR 2 800	EUR 4 480	EUR 0 ⁽⁴⁾
100 Gbps ⁽⁶⁾	EUR 2 800	EUR 4 480	EUR 0 ⁽⁶⁾
Private VLAN	EUR 40/ VLAN / év		EUR 40

Fees for auxiliary services

Description	Monthly fee	Setup fee (one-time fee) ^(c)
10G Ethernet data transmission	EUR 334	0 Ft ⁽⁴⁾
Wavelength service	EUR 250	EUR 250
Dupla Wavelength service	EUR 400	EUR 500
Optical connection (crossconnect) within BIX optical distribution board	free	EUR 80
Endpoint of optical patchcord in BIX optical distribution board (12 monomode strands)	free	EUR 500

Notes:

- (1) Open/Free, Selective/Restrictive peering: see [BIX Charter](#), Point 4.
 - (2) In case of transferring BIX ports, a one-off administrative fee amounting to HUF 30,000 is due instead of the installation fee.
 - (3) At BIX ports with reduced bandwidth, the total bandwidth is available. Usage of the port is checked based on a utilization rate of 95%, according to the industrial norm, and in case of overuse, the monthly fee of the normal port is payable for the entire invoicing period. Steps of the 95% settlement: The average traffic measurements for 1 minute are listed in increasing order, then the top 5% is ignored and the remaining value is the 95% traffic of the port.
- The monthly fee of the suspended BIX port is 20% of the active port fee.
 - Prices do not include the VAT

Discounted prices for standby (reserve) ports:

- The monthly fee for a standby BIX port provided on the same BIX node is 40% of the active port fee.
- The monthly fee for a standby BIX port, as part of the active LAG, is 40% of the active port fee.
- The fee for a standby BIX port provided on a different BIX node than the active port is 20% of the active port fee.

Promotions:

- (4) Promotion from 15 January 2018 till 31 May 2018: the one-time fee of 10 Gbps ports: HUF 0, otherwise HUF 150,000 (EUR 500)
- (5) 10 Gbps port volume discount: from the 4th port the fee is HUF 90 thousand /month/port (EUR 300) (progressive discount), from the 8th port (80 Gbps, 90 Gbps, or 100 Gbps), total monthly fee: HUF 840 thousand /month (EUR 2800). From the 11th port, HUF 90 thousand /month/port (EUR 300) These fees are applicable for Open/Free peering, in case of Selective/Restrictive peering, the fees indicated in the table are applicable.
- (6) Promotion from 15 January 2018 till 31 May 2018: for the first 2 customers signing up for a 100 Gbase-SR10 port the one-time will be waived, otherwise the fee is to be discussed. The discount applies only for the first active port per customer.
- (7) For the first 1 Gbps port no monthly fee applies if the BIX member has no additional ports.