



NIX·CZ

**Strategic Goals of NIX.CZ for the
Period 2015 – 2019**

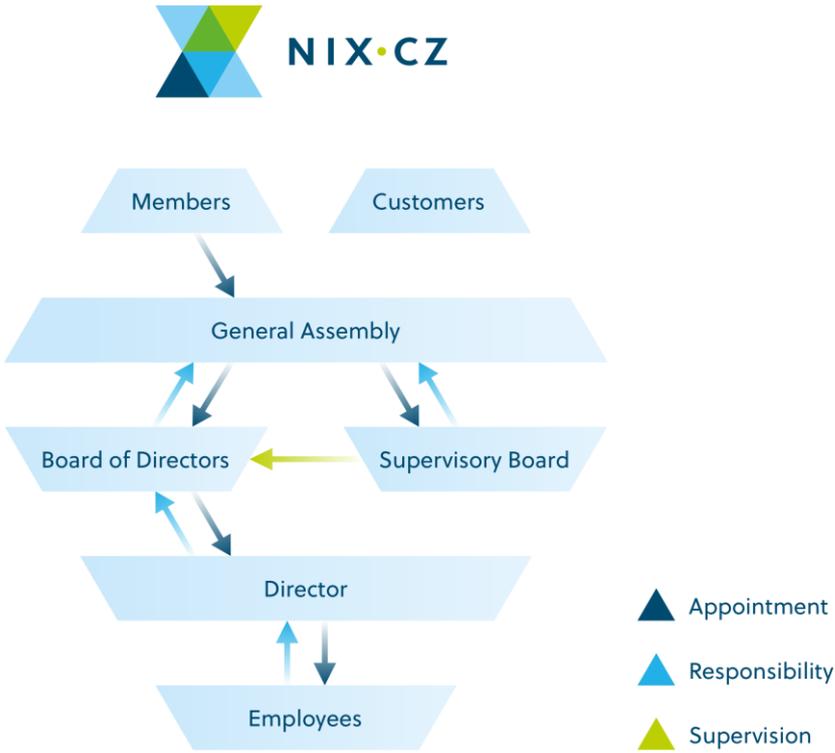
CONTENT

| | |
|--|---|
| 1. ORGANISATION OF THE ASSOCIATION..... | 3 |
| 2. THE MEMBER BASE OF THE ASSOCIATION..... | 4 |
| 3. FINANCE..... | 5 |
| 4. OPERATING THE NODE..... | 6 |
| 4.1. INFRASTRUCTURE | 6 |
| 4.2. TECHNOLOGY..... | 7 |
| 5. OPERATION OF THE ASSOCIATION | 7 |
| 6. THE FENIX PROJECT | 9 |
| 7. COMMUNICATING WITH THE PUBLIC | 9 |

Vision: The Association’s primary mission is to operate a stable and secure interconnection node infrastructure and to continue building neutral platforms for its members to communicate and exchange data traffic through peering.

1. Organisation of the Association

The present organisation of the Association is the result of the amendments to the Articles of Association agreed by the General Meeting in December 2012 and of the subsequent changes made in June 2014. The key change among these changes is in the number of Board members, from the original three to five, so as to increase the ratio of representation of our members. We wanted to ensure a wider representation of the different groups in our member base, but also to reflect the growing importance of the Association and the expansion and increasing complexity of our infrastructure. To further improve the responsiveness of the Association, certain powers were transferred from the General Meeting to the Board, specifically the power to make decisions about the opening, modification and closing of NIX.CZ peering nodes, as well as decisions regarding the Association’s Pricelist.

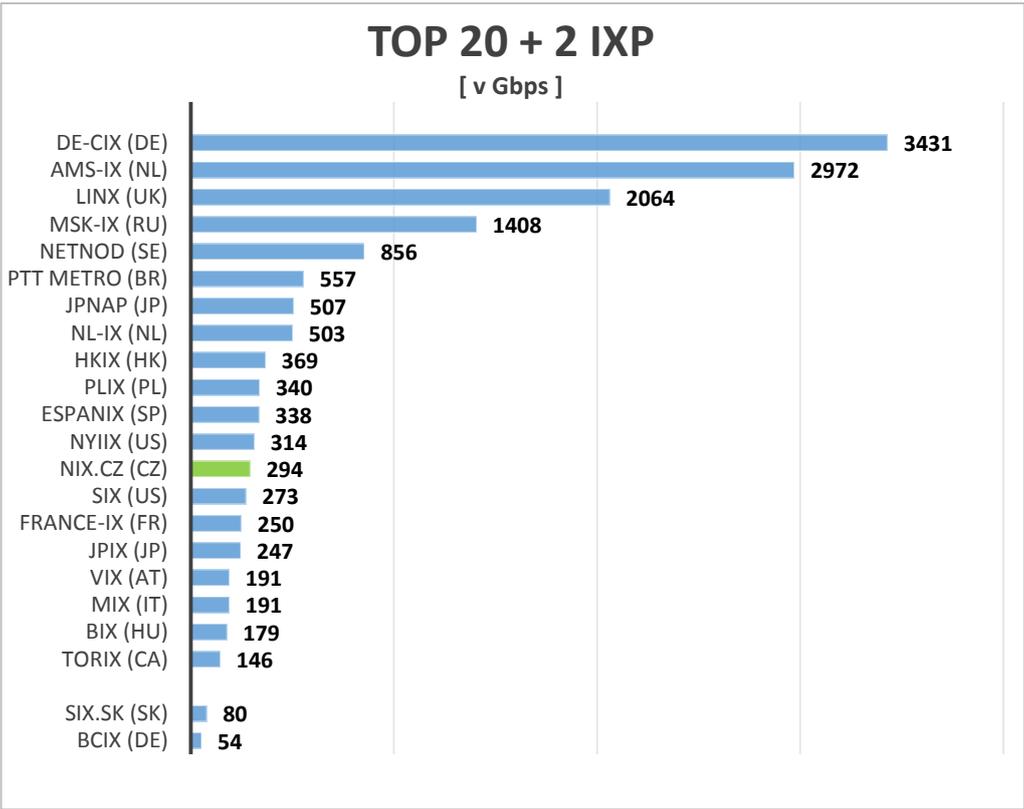


Given that these changes are fairly recent, we must allow more time before evaluating them and it is therefore not suitable to introduce any dramatic changes at the present moment. However, the attempts to modify the Articles of Association have made it clear that a significant number of our members show very little interest in the functioning of the Association and often fail to take part in the electronic voting during General Meetings.

In the extreme case, this could lead to a situation of a de facto paralysis of the Association because of the inability of the General Meetings to decide on proposals through voting. The Board will therefore continue looking for ways to motivate members to actively participate in work groups and voting procedures.

2. The Member Base of the Association

NIX.CZ was founded as a local Internet eXchange Point (IXP) catering to the needs of the Czech Internet. Over time, it has become an important European player and is now one of the twenty largest nodes worldwide.



Thanks to its size, it has become attractive to a number of foreign companies, both internet service providers and significant content providers. This benefits first of all its local members, who are able to save a large part of their foreign capacity by transferring their content to NIX.CZ, while at the same time decreasing latency and thus improving the quality of service for end users.

The Association will continue actively searching for new customers, especially abroad. Some of our assets can be particularly attractive to new candidates for memberships, namely the pricelist, volume of traffic transmitted and our members’ peering policy, but also their connection to route servers. Thanks to the large share of members who operate an open peering policy and use route servers, a new member can begin exchanging data quickly and with no administrative hurdles. The Association is therefore going to look

for ways of motivating its members to adopt this mode of functioning.

In 2012, NIX.CZ created a work group to deal with the legal aspects of our members' entrepreneurial activities. Its initial goal was to build a platform that could for example comment on the draft legislation in the Czech Republic. So far, this initiative has only made comments on the Law on Cyber Security, and then its activity waned. The Association will inquire as to whether its members are still interested in reviving the work group, which could serve to protect their common interests vis-à-vis state administration.

3. Finance

3.1. Reserve Funds and Investment

Thanks to the fact that in the recent years the Association has maintained a conservative budget and was able to keep its costs lower than budgeted, while bringing in higher revenues than planned, it now has a sufficient financial reserve. These funds can serve as a tool of stability and neutrality; they can also be used to deal with unexpected fluctuations or unpredictable natural disasters that could require significant one-off investments to settle possible insured events. The reserve is also used to invest in developing the technologies crucial to the fulfilment of our primary mission. In this case, such investments are financed from our own resources, without the need for external funding.

In the future, our goal will be to maintain a minimum reserve fund equal to one half of the Association's annual operating costs. Any surplus will be used to invest in the Association's fixed assets, such as our own optical paths, which in the long-term will allow us to reduce our operating costs and maintain our independence from suppliers, while also providing a better return on value than cash assets. These assets will be used solely for the operations of the Association.

Given that the level of investment has grown significantly, the Board of Directors and the Supervisory Board have agreed on a system of communicating about these important costs in order to ensure full transparency and control.

3.2. Price Stability of the Association

The budgets are drafted so as to reflect the fact that the Association was created as a non-profit organisation. The Pricelist is therefore meant to ensure that the revenues, which are largely made up of service fees for ports, cover the expenses: the projected financial reserve, investments, as well as the total costs of operating the nodes and running the Association itself. The price development is therefore closely linked to the increase in the total number of active ports and the volume of data transmitted. Another important aspect is to provide qualitative indicators of the services delivered.

The Pricelist is public and the price for the services provided remains equal for all members and customers. To connect new networks and increase the number of active ports, we will use short-term acquisition incentives. Similar incentives will be employed in the case of possible newly opened nodes, so that they start growing as quickly as possible. The Association will continue supporting its Partner Programme, which enables an easy inclusion of distant or smaller networks in the NIX.CZ infrastructure.

A long-term goal of the Association is to gradually decrease the price level of the services provided. However, considering other budget goals, prices do not need to be reduced at regular yearly intervals.

4. Operating the Node

4.1. Infrastructure

Over the long term, the Association operates infrastructure for mutual interconnection (peering) of the networks run by its members and customers. The infrastructure is currently accessible from five data centres in Prague. In addition to its public peering VLAN, a private VLAN and the FENIX Project, the Association also connects DNS infrastructure servers to its network by housing DNS ROOT and TLD servers, which makes the overall internet infrastructure more robust. To support the mutual interconnectivity of the connected networks, NIX.CZ also offers a Route server service. Lastly, the Association provides technical and administrative information via extranet.

Although our main goal in the future is to ensure the optimal functioning of all current services for all connected networks and to maintain growth, both in terms of the number of networks and the volume of traffic, the Association will also be looking for ways to increase the future utilization of its infrastructure through new services.

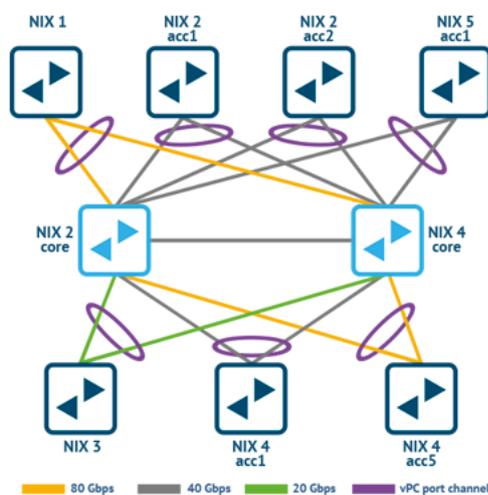
In the coming period, the Association will be concerned with the effective functioning and economical optimization of individual nodes. This could mean changes in the number of nodes or in their model of functioning. For example, they might continue to be used as passive nodes. Newly opened nodes could also be equipped with passive infrastructure. This will create new locations for connecting members' networks while keeping our costs minimal. When deciding on investment goals, the possibility of opening new nodes will continue to be assessed. All these changes will be discussed with members before.

The existing model of operating the NIX.CZ node seems to be successful, as evidenced by the demand registered by the Association for replicating its model elsewhere in the Czech Republic and abroad. The Board will consider, within the scope of its competencies, the possibility of creating new nodes in these locations. From a technical and administrative perspective, Slovakia seems to be the easiest location to verify the

functioning of the replication of this solution. The new national or international locations will however remain detached from the Prague nodes in order to maintain the neutrality of the Association. The investment needed for opening and upkeep these nodes must be recoverable over the medium term.

4.2. Technology

In 2010, Cisco was chosen as the technology supplier for the Association's infrastructure needs. Its technical solution was rated as optimal for the migration of our infrastructure from "ring" topology to the current "dual star" topology and has also enabled the smooth implementation of the new 100GE technology. NIX.CZ was the second peering node in the world to include this technology in its offer.



In the coming period, we will continue to monitor the development of new technologies in order to ensure the stability and quality of the services provided, while taking into account the level of investment and subsequent operating costs. We will compare and evaluate our options in terms of implementing technologies from other suppliers. In addition to primary infrastructure technologies, we will also monitor the needs for and evaluate the implementation and subsequent operation costs of technologies that can have a positive influence on the entire infrastructure, particularly the infrastructure of the Czech internet (NTP transfer, transfer of specialized multimedia services and others).

5. Operation of the Association

Over the long-term, the Association is run by a professional team of employees, who are responsible for the full technological functionality of the node, for operating the Association's systems, for activities related to connecting new networks, for the daily operation of the Association and for organising its activities. The structure of the Association is conceived in such a way as to make it highly efficient and compatible with the legislative framework in force, for example by maintaining 24-7 technical support, with

at least two trained technicians available at all times. The HR policy is within the responsibilities of the Director of Association.

The current model appears to be effective given the existing range of services. Therefore no changes are presently needed. However, they may be necessary in the case of opening new nodes in other locations or developing the Association's existing projects. Given the negative experience of the previous years and the need to preserve our „know-how“ within the scope of the Association, we do not envision any form of outsourcing our key activities, especially regarding our technical department.

6. The Association's International Activities

Over the years, the Association has made an excellent name for itself internationally. The Association is an active member of the European Internet Exchange Association (EURO-IX), where it is also directly represented on the Board of Directors. We cooperate with organisations such as RIPE NCC or NANOG. Our employees regularly participate in events organized by these groups, where they not only promote our name and values through lectures and presentations, but also gain valuable information and contacts, which then allow the Association to develop our activities further. NIX.CZ will continue to strengthen our relationships and trade experience with similar peering nodes. Our target regions are Europe and North America.

In 2014, the Association organized the second CEE Peering Day international conference, together with its Viennese counterpart VIX.at. The event was primarily meant to introduce individual organisations and the interconnection services market in the CEE region. It brings together peering coordinators and other representatives of individual operators and network providers, allowing them to get to know each other and open up new avenues for cooperation, which are not limited to the sphere of interconnectivity.

In 2014, after many years of striving for a partnership in the largest European peering conference, the European Peering Forum, NIX.CZ became one of its organizers. The event is co-organized by some of the largest peering nodes, namely DE-CIX, AMS-IX, LINX and NETNOD. NIX.CZ has now become one of their partners.

International activities increase the visibility of the Association's members and the Czech market as a whole and are therefore beneficial to the members of NIX.CZ. In the coming months, one of the priorities will be to consolidate the international position by organizing these kinds of events, as well as to continuously seek new partnerships and possibilities of hosting EURO-IX and RIPE NCC conferences.

7. The FENIX Project

The FENIX Project was created in 2013 as a reaction to the intensive DoS attacks that affected important Czech media providers, banks and service operators in March of that year. The goal of the project is to make sure that in the case of another DoS attack, internet services remain available among the participating subjects.



Membership in the FENIX Project is voluntary, but it is subject to a number of conditions, which are spelled out in the Connection Rules. By joining in, the participating companies clearly show that they are committed to increasing network security and therefore the security of their customers. The Project should appeal to companies providing connection for key services and wishing to ensure reliable operation during even the most critical situations.

The Association wishes to use this opportunity to educate and raise awareness about the security standards used both within the limits of this project and beyond, while also acting the project's coordinator and an independent arbiter deciding on issues of rule compliance. The initiative will also be presented internationally and promoted among other peering nodes.

8. *Communicating with the Public*

Over the past year, NIX.CZ has been trying to increase its communication with the wider public. It has been doing so mainly through press reports, articles in specialized media and presentations at conference at home, as well as via interviews and university lectures and presentations. Thanks to this, the Association is now increasingly perceived as a prestigious technological organization; we will continue to pursue this direction further.

Adequate explanation and sufficient understanding of the topics of Internet interconnectivity are limited by the present levels of knowledge and orientation in the field among the wider professional public. NIX.CZ will continue to look for suitable means of educating this target group, for example through educational materials, publishing activities and so on.