IGF 2016
Best Practice Forum on IXPs
Contributing to the success and continued development of an IXP

Executive Summary

The Best Practice Forum (BPF) *Contributing to the Success and Continued Development of Internet exchange points (IXPs)* collected best current practices that have proven to contribute to building strong and successful IXPs.

The BPF on IXPs was part of the community intersessional work program of the Internet Governance Forum (IGF). This report is the outcome of an open an iterative process over the months preceding the 11th IGF meeting in Guadalajara, Mexico, 6-9 December 2016.

The BPF on IXPs and this best practice outcome document want to serve as a flexible and useful resource intended to inform policy debates on IXP-related issues in a neutral way. This is not a normative document but a sharing of community experiences.

The Internet is a network of networks, which collectively constitute a global communication system. *Internet exchange points (IXPs) are physical locations where three or more networks can connect at a common point to exchange data traffic.* Exchanging traffic at an IXP has a number of benefits that can contribute to a more affordable, stable, faster and more reliable Internet of a higher quality in a region, and as such can help to enable inclusive and sustainable growth of the local Internet ecosystem.

The 2016 BPF on IXPs has built on the work of the 2015 BPF *Enabling environments to establish successful IXPs* that collected best practices to create a supportive environment that facilitates the establishment and development of an IXP. The success of an IXP will largely depend on its capacity to create an environment of trust and cooperation among its members and stakeholders.

The success of an IXP should be measured by its ability to sustainably contribute to the development of the Internet ecosystem within its community. Traffic volume alone is not an accurate indicator of success. The 2016 BPF focused on the management and operation of an IXP and identified factors that can contribute to the success. IXPs and their stakeholders often look for experiences of other IXPs in order to identify what made them flourish.

After their establishment IXPs must continue the efforts to build trust and gain the support from their local community. Outreach will remain important, to explain to stakeholders and decision makers what the function of an IXP is and how it can contribute to the development of the local Internet.

Once the IXP is set up and the technology is installed and running, the attention needs to shift to the long-term growth and sustainability of the IXP. The IXP, whether it is for-profit or not-for-profit, needs a business plan. A good business plan will allow the IXP to foster growth,

foresee challenges and better cope with changes. The BPF discussed why a business plan is important, also for e.g. not-for-profit, small, or subsidized IXPs. IXP leaders have to run their project with a business mindset, but also understand that putting together a business plan does not necessarily means commercializing the IXP.

An IXP's business plan can be simple or more elaborate, but it is advisable that it contains at least a basic budget, with revenues and expenditures, and a marketing plan to gain visibility and approach potential new members. The business plan can help to prepare for changes and to early address challenges. The BPF identified a number of challenges IXPs can meet on their path: coping with growth in a timely way so that the IXP is not slowed down due to capacity issues, dealing with volunteer and donor fatigue, raising the IXP's visibility, foreseeing and reacting on changes in the market, assuring the financial sustainability of the IXP, attracting content providers and CDNs, securing the technical sustainability of the IXP and foresee in local technical capacity building, etc.

Unfortunately there is no golden or one-size-fits-all solution. Each IXP is embedded in its local environment, with different particularities, challenges and opportunities. This does not mean that IXPs cannot learn from each other's experiences, on the contrary. Therefore the BPF collected case studies from different parts of the world, selected because their story is in one way or another unique, and can inspired their peers. The BPF document presents the case studies from IXPs in Canada, Vanuatu, Thailand, Rwanda, Bangladesh, Ecuador and Argentina.

The BPF on IXPs held a workshop at the IGF meeting in Guadalajara where the question why an IXP needs a business plan, and other IXP best practices were addressed and discussed with IXP operators. A video recoding of the workshop can be found on the link below:

> *BPF on IXPs workshop at the 11th IGF meeting*,
> 8 December 2016, Guadalajara, Mexico
> https://youtu.be/S6fFinDt5U0 (YouTube video)

Exchanging experiences and mutual learning is key for new and developing IXPs as well as for those already exist for some time. There is a huge amount of knowledge available within the IXP community and many more places other than this BPF document where IXPs and their stakeholders can exchange information, ask peers for advice and learn from each other's failures and successes. The last section of the document and the annexes contain a non-exhaustive overview of existing initiatives, meetings, organizations, and resources.