

4th Virtual Best Practice Forum Meeting
Creating an Enabling Environment for IPv6 Adoption
Tuesday 14 July 2015
IGF 2015

Summary report

This summary report reflects the general ideas and comments expressed during the 4th Virtual meeting of the Best Practice Forum on *Creating an Enabling Environment for IPv6 Adoption* on Tuesday 14 July 2015.

1. Status update

The group defined the [Scope & Goals](#) for the BPF on IPv6. The focus of the BPF lays on the *environment* that encourages people to adopt IPv6 rather than on sharing of technical Best Practices.

A *Background document* is being discussed online. The Background document explains what IPv6 is, justifies the need and benefits of IPv6, and lists some of the main challenges for IPv6 adoption. The Background document will serve as introduction to the BPF Outcome document.

The draft Structure of the *BPF Outcome document* was shared at the previous call.

2. Background document

It was emphasized to be cautiousness that the background document remains in line with the scope and goals defined for the BPF and addresses the envisaged audience.

The IGF is a great opportunity to reach out to an audience that is normally not the first target of other IPv6 initiatives. It was felt that the current draft is still too technical for the IGF audience. The Background document needs to address and translate the need for IPv6 deployment in a *non-technical, socio-economic and political language and ditto arguments*, otherwise non-technical people risk losing interest.

Technical issues should be mentioned in the background document, but explained in a concise non-technical wording so that the reader is aware that they exist, but is referred to *existing publications and background documents for further reading* if he or she wants to know more.

It was advised to present IPv6 in a positive way, as a *new standard and a solution*. IPv4 is the problem that needs to be solved. The current version of the Background paper gives the impression that IPv6 is the problem and major challenge, which isn't in line with the message the BPF wants to give.

3. Outcome Document Structure

In general there were no specific comments on the proposed structure for the Outcome document.

It is important to list examples of what has proven to be successful and explain why certain practices and initiatives had success.

A number of points need special attention:

- It is important to include *lessons learned*; also from less successful initiatives.
- One needs to avoid cases where positive results cannot directly be linked back to the initiative; for example when the *success came by accident* or was *caused by external factors*.
- The environment needs to be taken into account when analyzing the success or failure of an initiative; (a combination of) environmental factors or the existence of other IPv6 initiatives in the region influence the effect an initiative can have.
- Not all stakeholders have the same agenda; what one stakeholder perceives as a positive result, is not necessarily a success for all stakeholders.
- To correctly assess and compare different initiatives it is necessary to develop some objective measurement or assessment tool. (not only trust self assessment)

It is necessary to involve the right people in the discussion and get their contributions. Special attention should go to involving non-technical people and it was suggested to use the MAG as a channel to reach out to them.

4. Best Practices: Open Call for Contributions (survey)

The BPF will use an online survey to collect Best Practice examples. A draft survey was discussed during the meeting.

The survey must be simple and clear to maximize the number of submissions. An introduction needs to clearly explain the purpose of the survey and what is expected.

The aim of the survey is to compile a broad collection of examples of practices that help to create an environment that enables the adoption of IPv6. These examples will feed in and illustrate the analysis in the Best Practices Outcome

document and they will be made available online in a repository on the IGF website.

The survey will be launched as soon as possible and in the mean time the work on the background paper and on the outcome document will continue in parallel.

5. Timelines and Next Steps

An updated timeline was presented (see attachment).

6. Next call(2)

A poll will be launched to plan and schedule upcoming calls at fixed days and times. This will replace the short-term planning with a doodle poll for each call.

7. AoB

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The recording of the call is available via the link below.

IGF BPF IPv6 4th Virtual Meeting
Duration: 1 hour 22 minutes
[Streaming recording link \(click\)](#)

- Report by Wim Degezelle

Attachments

- **Meeting attendees**
- **Draft outline for the BPF IPv6 Background Paper**
- **Draft Outline for the BPF IPv6 Outcome Document**
- **Revised Timeline**

MEETING ATTENDEES

- | | |
|----------------------|------------------------------------|
| 1. Alejandro Acosta | 5. Constance Bommelaer |
| 2. Marco Hogewoning | 6. Izumi Okutani (BPF coordinator) |
| 3. Nathalie Trenaman | 7. Wim Degezelle (BPF consultant) |
| 4. Klee Aiken | |

MEETING AGENDA

0. Agenda Review
1. Status Update
2. Background Document
3. Outcome Document Structure
4. Best Practices: Open call for Contributions
5. Timelines and next steps
6. Next call(s)
7. AoB

Draft outline for the BPF IPv6 Background paper

- 1 Introduction (about the BPF)**
- 2 Context** (Explains IP addresses, explains IPv4, explains exhaustion)
- 3 Why is it important to adopt IPv6?** (explains the negative and positive reasons for IPv6 adoption)
 - a “negative”
 - i IPv4 exhaustion
 - ii Expense of obtaining IPv4 resources
 - iii Expense of maintaining legacy IPv4 infrastructure
 - iv Expensive mitigation of hijacking of legacy IPv4, scarce, resources.
 - v Expensive logging and reporting.
 - vi Inability to reach IPv6 only user base (without using a gateway)
 - vii Service degradation on NAT and CGN
 - viii Security implications of NAT and CGN
 - b “positive”
 - i Wider applications beyond conventional use such as homenet, which can lead to client to client communication rather than the client server model / Internet of Things
 - ii End-to-end reachability
 - iii Ability to plan a 10+ year (IPv6) architecture rather than 2- years (IPv4)
 - iv Simplifies security policies
 - v Scalability
 - vi Mobile?
 - vii Spurring economic growth (via new technology innovations)
- 4 What are some challenges to adopting IPv6?**
 - a Supply and Demand
 - i Hardware and software vendors should provide IPv6-capable products and are not receiving enough “demand” from customers;
 - ii Many vendors are treating IPv6 as a “feature request” rather than a “bug” and have implementation lower in priority than it should be.
 - b For ISPs
 - i adequation of internal billing and provisioning systems
 - ii Rewrite of existing proprietary / internal tools
 - iii human resource training
 - iv network device support for IPv6, in particular for those ISPs using old equipment (developing countries in particular)
 - c Agenda for the Best Practice Forum (outlining the work of the group)
 - i Identify a handful of best practices through community outreach, e.g.
 - 1 IPv6 Task Forces
 - 2 Guidelines
 - 3 Government Procurement
 - 4
 - ii Session at the IGF2015
 - d How to Participate (information)

Draft Outline – BPF IPv6 Outcome Document

1. Introduction (Background paper)

<this section gives the reader, regardless of his background and knowledge a good understanding of IPv6, ongoing discussions and issues at stake = the content of the Background paper>

2. Best Practices to Create an Enabling Environment for IPv6 Adoption

<methodology:

(1) a template is used to collect best practice examples; (2) the template covers the points suggested by the template for the BPF output document; (3) the collected cases are grouped in different types (note: the different types are based on the received cases/examples; only if we notice that there are loopholes, the list is asked to provide specific examples); (4) per type a general overview is written and discussed on a call is organised ;

2.1. Best Practice type A (for example: IPv6 Task Forces)

I. Introduction / Overview

< this is a summary of main characteristics and findings, based on the collected best practice examples, following the structure of the template>

1. Description of the Best Practice type A
2. Regional specificities observed (e.g. Internet industry development)
3. (Existing policy measures and private sector initiatives, impediments)
4. What worked well, identifying common effective practices
5. Unintended consequences of policy interventions, good and bad
6. Unresolved issues where further multistakeholder cooperation is needed
7. Insights gained as a result of the experience

II. Best Practice examples

< here follows the collection of templates for the best practices>

2.2. Best Practice type B

I.

1.

2.3. Best Practice type C

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3. Conclusion (Summary and suggest next steps)

Revised Indicative Timetable (for discussion)

- 14th July: Open call for contribution
Discuss categories of measures and activities
- 21th July: Agree on components of the background paper
- 29th July: Freeze the text of the background paper
- 31th July: Publish the Backroud Paper
- 5th Aug: Discussion on categories A and B + draft text
- 12th Aug: Discussion on categories C and D + draft text
- 15th Aug: Deadline of contributions
- 26th Aug: Discussion on categories E + F + draft text
- 2nd Sep: Analysis
- 16th Sep: Freeze the text of the output document
- 18th Sep: Publish output document