ISP Networks

draft-lind-v6ops-isp-scenarios-00.txt

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The beginning

- Set out on the same path as the other design teams
- Goal: identify needed coexistence mechanism
- Two documents, Cases and Analysis
- A first cases/scenarios document was written before the 56th meeting
  - Described different network types
  - Became extensive, >80 pages
  - Lacked IPv6 information
- An effort was made to add IPv6 issues
  - Proved difficult, hard not to hint solutions
- An outline to a analysis document written

Next step

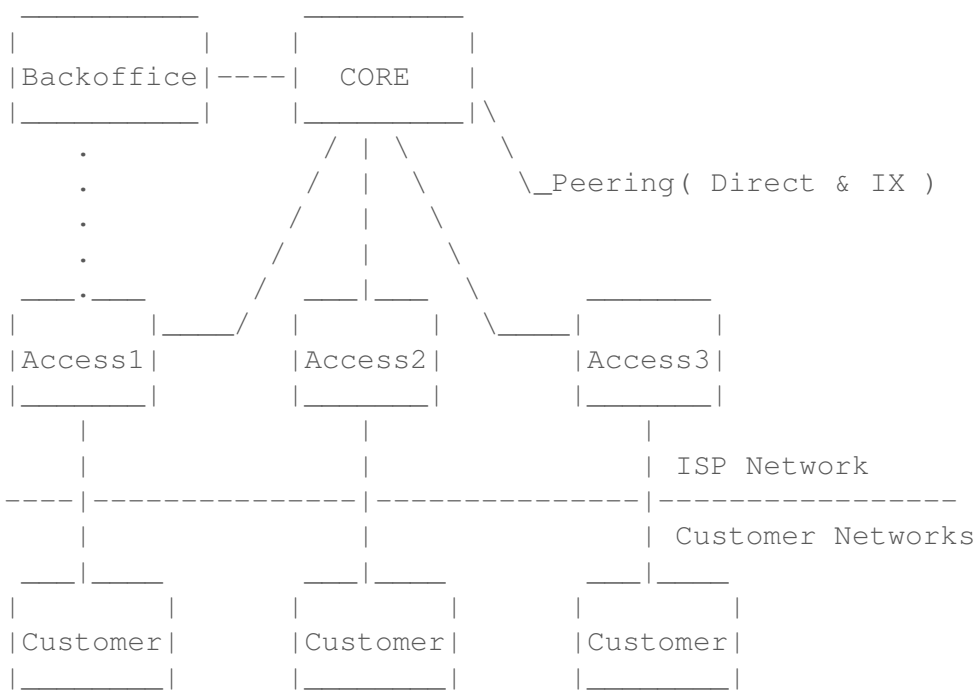
- Rewriting the existing documents was deemed to difficult
- A change needed, focus on IPv6 migration not on technical details
- New approach presented at the last meeting
  - Reduce the network details
  - Add IPv6 introduction scenarios
- The new approach proved difficult as well
  - Difficult not to hint solutions
  - Difficult to limit the scenarios

A new try

- draft-lind-v6ops-isp-scenarios-00.txt
- A further simplification
- Defines a generic ISP network
- Defines stages of IPv6 maturity in the network
- Defines migration scenarios between the stages
- Limited in detail
- Leaves out IPv6 only networks
- Gives a simplified view of the world
- Should apply to most ISP networks

Scenarios draft

- Defines a simple generic ISP network that consists of a core and access part and peers through exchange points or directly



Scenarios draft

- The ISP network is said to exist in different stages
  - It can be in the original stage which is all IPv4
  - It can be partially upgraded to support both IPv4 and IPv6 in parts of the network
  - It can be fully upgraded to support IPv4 and IPv6 in all parts of the network
- In order to move from one stage to another there has to be a transition
- These transitions are defined as different transition scenarios
- The transition scenarios will be the basis for the migration in the solution document

- Is this view too simplified?

A new path

- Focus on a document for the ISPs
- Not be intended to define all coexistence mechanisms

Decision point

- Continue on the old track
- Refocus the work
  - Change the intent of the documents
  - Write a guide for ISPs

Why change goals?

- Previously experienced problems
  - A change will probably allow easier useful progress
- Lack of interest
  - A guide for ISPs might create more interest for the work

What will this change lead to?

- A scenarios document similar to draft-lind-v6ops-isp-00.txt
- A solutions document that is a guide for ISPs
  - Take a more practical approach to the ISPs IPv6 issues
  - Solutions for different network types
    - Definition of different networks can hopefully be reused from the first cases document.
  - Provide a guideline for ISPs on how the IPv6 migration can be done
  - Will indirectly identify coexistence mechanisms
- Multiple documents for the solutions is a possibility
  - Would allow different areas to progress separately
  - Will prevent the task from getting to big

Content of solutions document

- Describe the migration process for ISP networks
- Point out difficulties and risk with different migration methods
- Answer questions like: How to transition my existing IGP ?
- Handle different network types like DSL, Cable and so on separately
- Point out what equipment is affected by the migration
- Review the use of different coexistence mechanisms
- Limit the migration process to what is described in the scenarios doc
  - No IPv6 only service

A third choice

- End the ISP work
- If there isn't enough interest it perhaps shouldn't be done

- Not the right choice, there is a need to help the ISP with the IPv6 migration

Conclusions

- A change is needed
- Have to focus on the ISPs need from a practical standpoint
- Need to gain more interest

Questions

- Should we write an ISP guide?

If yes:

- Should we write separate migration instructions for different network types?
- Is the scenarios document useful when writing the ISP guide?

If it is:

- Can we keep the existing generic network view?
- Are the stages and scenarios reasonable ?

The future

- Other suggestions or questions?

- Interested in helping out?
- Discussion on how the work within the ISP team should be divided today at 18.00 in this room, will continue at the social event