Requirements for the extension of the MLD proxy functionality to support multiple upstream interfaces

<draft-ietf-pim-multiple-upstreams-reqs-04>

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Purpose and Content

- Purpose
    - To define the functionality that an IGMP/MLD proxy with multiple upstream interfaces should have in order to support different scenarios of applicability in both fixed and mobile networks

- Content
    - Problem statement
    - Scenarios of applicability *(more detail in next slide)*
    - Requirements for these scenarios are identified
    - Security considerations

Scenarios of applicability

- Multicast wholesale offer for residential services

- Multicast resiliency

- Load balancing for multicast traffic in the metro segment

- Network merging with different multicast services

- Multicast service migration

- All of them of applicability for fixed and mobile networks

Requirements

| Functionality	Multicast Wholesale	Multicast Resiliency	Load Balancing	Network Merging	Network Migration
Upstream Ctrl Delivery	X	X	X	X	X
Downstream Ctrl Delivery	X	X	X	X	X
Active/Stdby upstream		X			
Upstr i/f group selection			X	X	
Upstr i/f all selection		X			X
ASM	X	X	X	X	X
SSM	X	X	X		X

Document's history and Next Steps

- Adopted after IETF 92nd (Dallas)
  - Problem presented to different WGs before (originated in MULTIMOB)

- Some initial security considerations added in -01 presented in IETF 94

- Version (-02 &) -03 includes two new applicability scenarios

- Version -04 addresses the latest comments received

- Next steps –> to ask for WG last call after IETF 99th
  - Goal: publish it as Informational RFC

BACKUP SLIDES

Problem statement

- General application:
  - Sharing of a common network access infrastructure among different multicast content providers
- Advantages
  - Subscribers can get their preferred contents from different multicast content providers without network constraints and without requiring PIM routing on the access / aggregation device
  - Redundancy
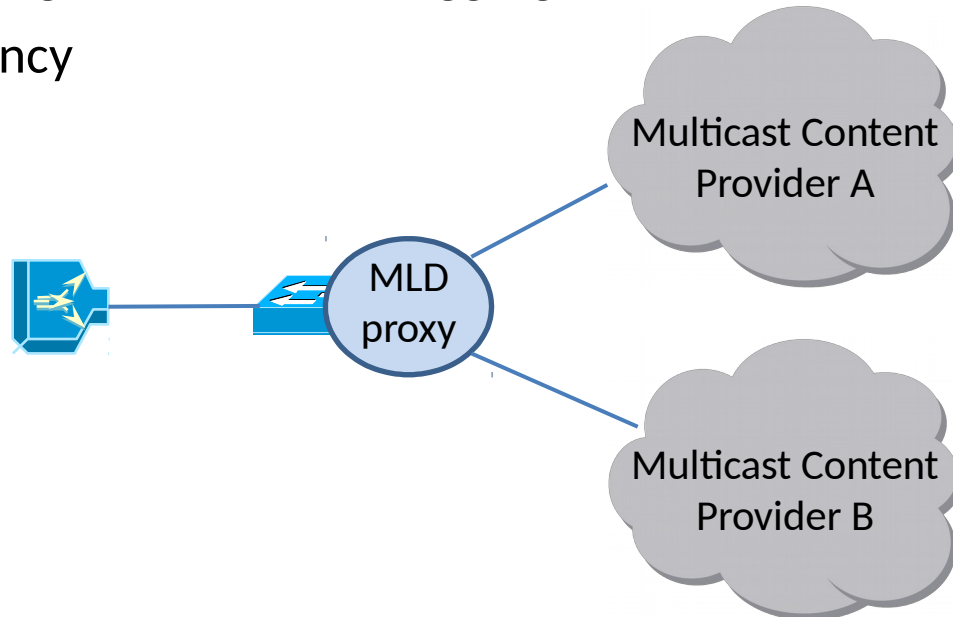
Details in the resolution of the latest comments received

- "add ssm or asm support in requirement document"
  - Impacts on ASM and SSM added along the document
- "upstream chosen should be chosen on unicast protocol or not? In case of multiple paths"
  - This will be part of the solution document
- "mobile scenarios requirements? Does it impact the solution? And use cases?"
  - Mobile case evaluated. The potential scenarios in this case are contained into the ones described for the fixed network scenarios, so the same situations and requirements apply