



I E T F[®]

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

<draft-ietf-pim-multiple-upstreams-reqs-03>

Luis M. Contreras
Telefónica

Hitoshi Asaeda
NICT

Carlos J. Bernardos
UC3M

Nicolai Leymann
Deutsche Telekom

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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*

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

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
- Next steps:
 - Add mobile network scenarios?
 - Collect input and comments from the WG on the use cases and requirements for new version in next IETF meeting
 - How to mobilize PIM WG community for this?
 - 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

