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

<table>
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<tr>
<th>Functionality</th>
<th>Multicast Wholesale</th>
<th>Multicast Resiliency</th>
<th>Load Balancing</th>
<th>Network Merging</th>
<th>Network Migration</th>
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Document’s history and Next Steps

• Adopted after IETF 92\textsuperscript{nd} (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 99\textsuperscript{th}
  – 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