Discussion Issues on Receiver Access Control in the Current Multicast Protocols
(Update)
draft-ietf-mboned-rac-issues-02.txt

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Tsunemasa Hayashi (hayashi.tsunemasa@lab.ntt.co.jp)
Haixiang He (haixiang@nortelnetworks.com)
Hiroaki Satou (satou.hiroaki@lab.ntt.co.jp)
Hiroshi Ohta (ohta.hiroshi@lab.ntt.co.jp)
Susheela Vaidya (svaidya@cisco.com)

Introduction

Updated the I-D reflecting comments in ML and the last meeting

Key Point:

In our experience, many issues raised in the I-D are NOT currently well covered by existing standards.

Goal:

In multiple-entity networks,

- to achieve the same capabilities such as access control & accounting used in unicast content delivery while taking advantage of multicasting's resource efficiencies
- To achieve admission control to keep QoS

Network models

SINGLE ENTITY MODEL

Content provider (CP) and network provider (NP) functions are realized by one company

Content provider function

Network provider function

AAA
Multicasting
QoS Mgt

edge

edge

Hosts / Users
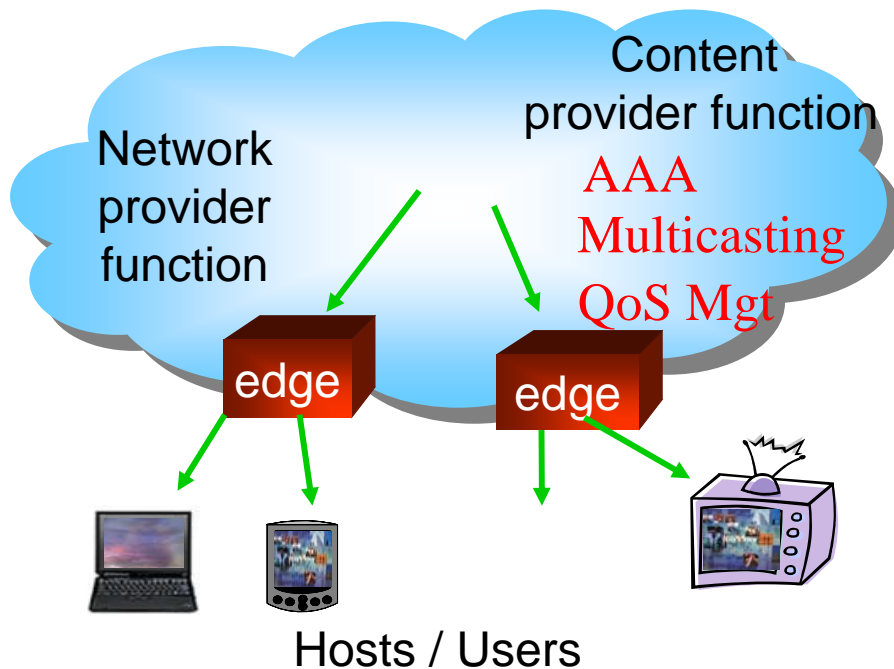
A user subscribes to only one CP (NP)

MULTIPLE ENTITY MODEL

Content providers and the network providers are different companies

Content Provider A

AAA

Content Provider N

AAA

Network Provider A
Multicasting and QoS Mgt

edge

edge

Hosts / Users
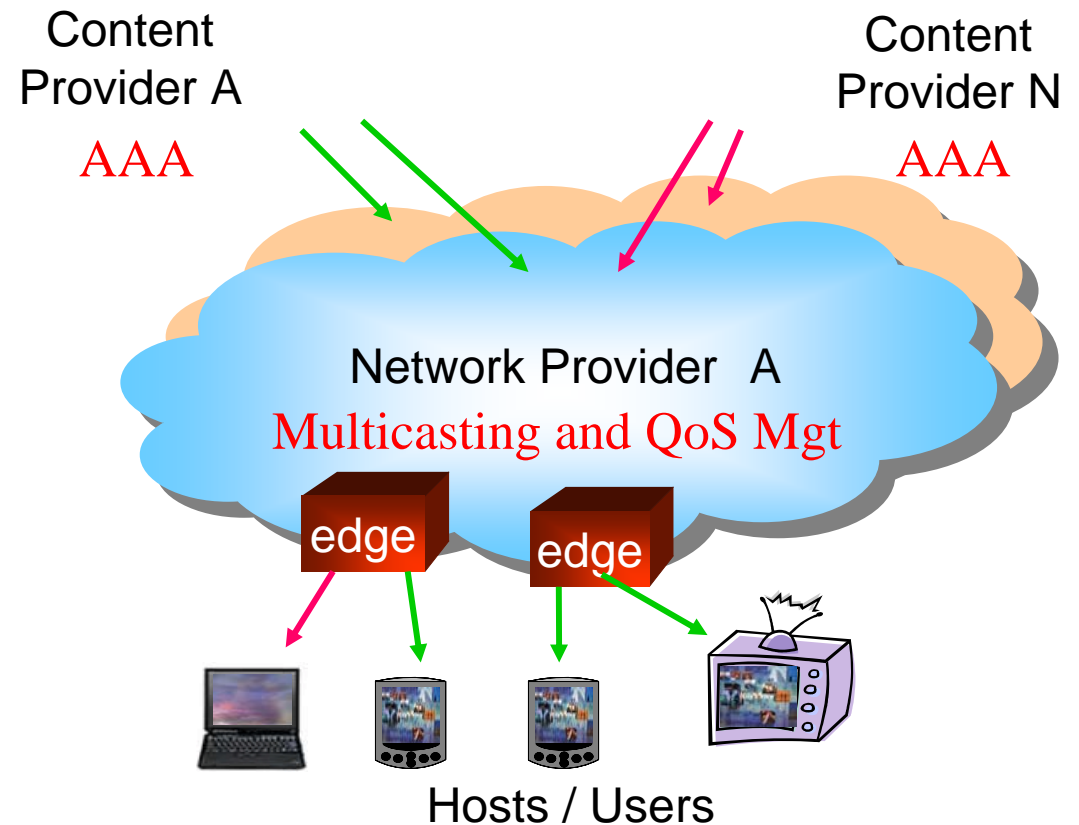
A user may subscribe to more than one Content Provider

Major Changes

- Addition of text to 5.3 "Unicast Control with IGMP/MLD"
  - This approach is relying on either some sort of content encryption because a user access a group easily without unicast control.
- Text changes in 6.2 "Capability to distinguish between receivers
  - The sender has no direct line of contact with the receiver and therefore cannot distinguish on a receiver-basis on IGMP/MLD
- Added text to "6.4 Maintain guaranteed quality-level of data delivery (Voice, Video)"
  - Multicast encryption provides no mechanism to reject a user attempt to access when sufficient resources (bandwidth) are not available
- Added text to 6.5 "Fast leave for fast surfing capability"
  - In case of cross-CP channel changing, "Unicast Control with IGMP/MLD" has latency issues because of changing a unicast control server.
- Changed and added text to "6.6 Surveillance of receiver by sender"
  - Added case of user not logging out after watching video or other multicast content because running services other than multicasting.
  - Added issue of possible needless reserving of unused bandwidth
  - Added issue of deactivation if user does not refresh MLD/IGMP reports/join. Lack of precise timing is issue for paid services.

Conclusion

Status:
- Feedback from ML and IETF sessions has been reflected.

Actions for this I-D:
- Address the comments in this meeting and publish the revised draft if necessary.
- Go to Last Call with the (revised) draft. Need to make to informational RFC so it can be referenced by other documents (e.g. framework draft(s))

In addition to this ID, next steps should include:
- Start discussion on framework for "well managed IP multicasting" as proposed by another draft