draft-tarapore-mbone-multicast-cdni-07

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Scope of Document

- Develop ***Best Current Practice*** (BCP) for Multicast Delivery of Applications Across Peering Point Between Two Administrative Domains (AD):
    - Describe Process & Establish Guidelines for Enabling Process
    - Catalog Required Information Exchange Between AD's to Support Multicast Delivery
    - Limit Discussion to "Popular Protocols" (PIM-SSM, IGMPv3, MLD)
- Identify "Gaps" (if any) that may Hinder Such a Process
- Gap Rectification (e.g., New Protocol Extensions) is Beyond the Scope of this BCP Document

Revision History

- Vancouver 2012 - Revision 0 Proposed as a BCP for Content Delivery via Multicast Across CDN Interconnections.

- Atlanta 2012 – Revision 1 Preempted due to Hurricane Sandy

- Orlando 2013 – Revision 2 Proposed as General Case for Multicast Delivery of Any Application Across two AD's:
  - CDNi Case is One Example of this General Scenario

- Berlin 2013 – Revision 3 provides detailed text for Use Cases in section 3 ➔ *__Accepted as Working Group Draft.__*

- Vancouver 2013 – Revision 4 added new use (section 3.5) & proposed guidelines for each use case in section 3.

- London 2014 – Revision 5 added sections 4.1 (Transport & Security) & 4.2 (Routing) Guidelines.

- Toronto 2014 – Revision 6 added text in section 4.3 Back-Office Functions

- *Honolulu 2014 – Revision 7 added text to sections 4.4, 4.5, 5, & 7:*
  - *Sections 4.4 & 4.5: Operations & Client Reliability Models*
  - *Section 5: Security Considerations*
  - *Section 7: Conclusion*

Operations Guidelines (Section 4.4)

Recommends Service Performance and Monitoring Support for Multicast Delivery across Peering Points:

- Collection of Multicast Delivery Performance Metrics by Both AD's.

- Exchange of Performance Information between the 2 AD's.

- Service Monitoring:
  - End User Complaints Sent to Multicast Application Source Provider
  - Application Provider has Contract with AD-1
  - AD-1 Responsible for Collection of ALL Service Issues in both AD-1 and AD-2 Domains
  - Proper Processes for Exchange of Service Monitoring Results Between 2 AD's Recommended.

Client Reliability Models Guidelines (Section 4.5)

- Choice of Reliability Models is up to the 2 AD's to Work Out and Implement

- Possible use of Unicast Means for Backup is mentioned in the Draft I-D (sections 4.2.1, 4.2.3, and 4.3.1)

Security Guidelines (Section 5)

Security Guidelines Involve DRM and Accounting, Authorization and Authentication (AAA) Processes:

- Desired Process needs to be worked out between Multicast Application Source Provider and AD-1
- AD's have no DRM Responsibilities
- Two AD's Agree to Implement Processes for Validation of End User ID and Bytes Exchanged

Conclusion (Section 7)

- Detailed Use Case Scenarios Presented for Multicast-Based Application Delivery between Two AD's via Peering Points:
  - Two Cases with Native Multicast
  - Three Cases with AMT
- Detailed Guidelines Offered to Support Delivery Process for All Use Cases
- *For Use Cases 3.4 and 3.5 (Involving AMT), Procedure for Determining Correct/Optimal AMT Relay Needs to be Developed.*

Next Steps

- Technical Sections Essentially Complete
- Need Guidance on Section 6 (IANA Considerations??)
- Feedback Invited
- Possible to Schedule "Last Call" for 1Q15??

Thank You