

draft-tarapore-mbone- multicast-cdni-06

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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:**
 - **Guidelines for Provisioning, Accounting & Billing, Logging, & Settlements**

Provisioning Guidelines (Section 4.3.1)

Recommends Provisioning Support for Multicast Delivery across Peering Points:

- Sufficient Capacity over Peering Points
- Sufficient Capacity for Connectivity to all Supporting Back Offices
- Availability of All Required Protocols
- If AD-2 is Not Multicast Enabled (Use Cases 3.4 & 3.5):
 - EU must have Multicast Client (supplied by AD-1, AD-2, or Application Source)
 - All AD-2 AMT Relays must have all {S, G} addresses for all relevant Multicast streams
 - *DNS across each AD should enable client GW to locate Optimal AMT Relay (Need to Progress DNS Based AMT Location I-D).*

Billing Guidelines (Section 4.3.2)

All Multicast Delivery between Pairs of Ads are Associated with the Application Accounts.

Supporting Guidelines:

- Each Application is Identified via a Unique Identifier
- Sharing Customer Accounts between Ads:
 - AD-2 sets up accounts for its customers
 - Protected by Login/Password credentials
 - Information made available to AD-1 for Proper Billing

Logging Guidelines (Section 4.33)

Appropriate Logging Information will be Shared between ADs as follows:

- Usage Logs per Application (Can be Aggregated per Group – E.g., Videos, Web Pages, Sets of Software)
- Security Logs:
 - Per Security Event (E.g., Cyber Attack)
 - Aggregated and/or Summarized per Event
- Other Relevant Logs:
 - Access Logs
 - Application Logs
 - Syslogs

Settlement Guidelines (Section 4.3.4)

Settlements between ADs Relate to:

- Aggregation, Collection, & Transport of Data
- Billing and Reimbursement

Supporting Guidelines:

- Settlement Usage Collection may be done:
 - Per End User
 - Per Application and/or Application Provider
 - Aggregated Basis
- AD-2 Collects all Relevant Data & Submits Invoices to AD-1
- AD-1 Collects all Relevant Data & Submits Invoices to Application Providers
- Rule changes for Charging Values may be done via agreement between ADs.

Next Steps

- Complete Section 4
- Request Comments on New Draft Text
- Goal – Complete BCP by 1Q15

Need Guidance on Compliance with IETF BCP Formats

Thank You