

# draft-tarapore-mbone- multicast-cdni-04

Percy S. Tarapore, AT&T

Robert Sayko, AT&T

Greg Shepherd, Cisco

Toerless Eckert, Cisco

Ram Krishnan, Brocade

# 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

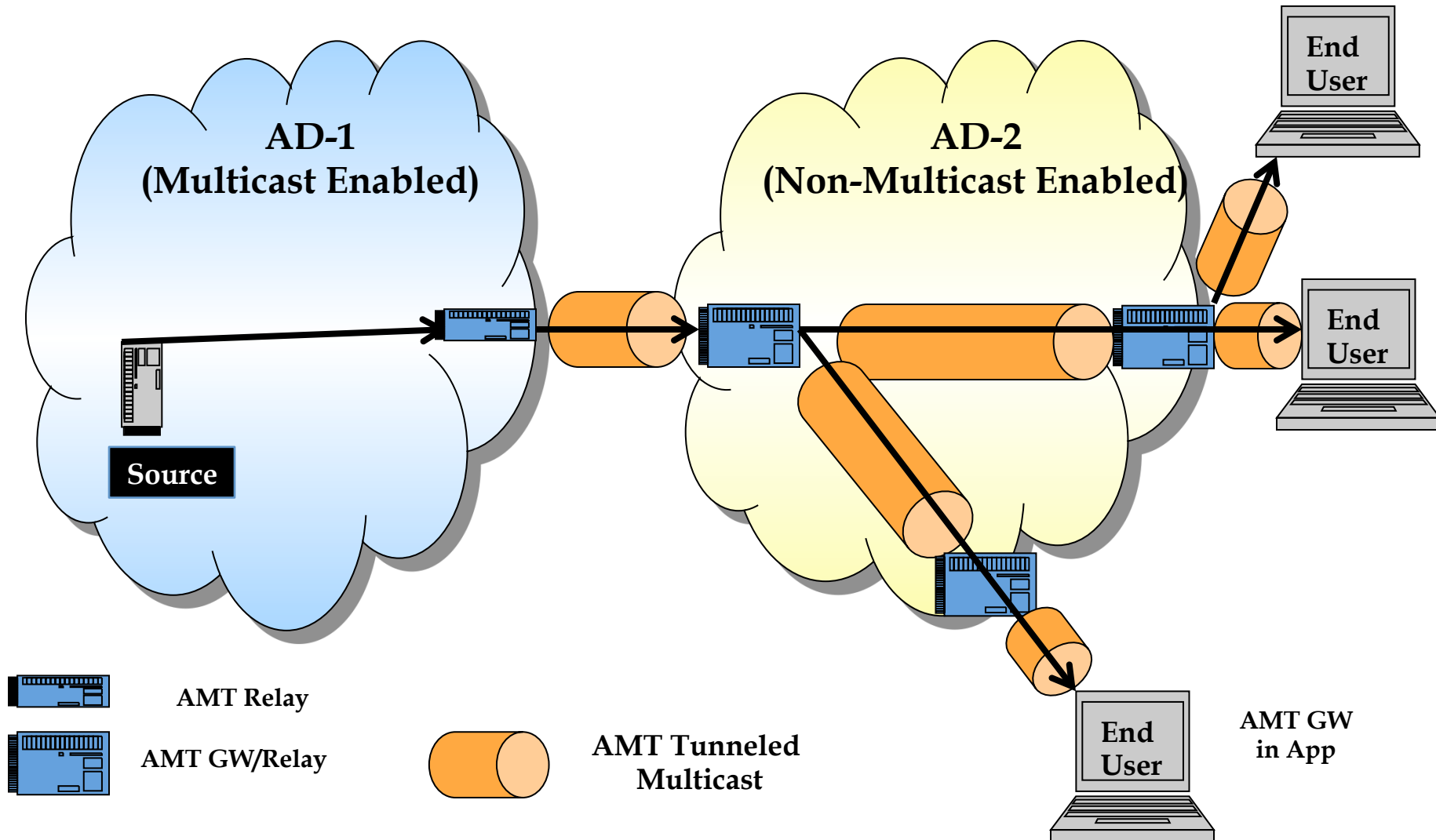
- Vancouver 2012 - Revision 0 Proposed as a BCP for Content Delivery via Multicast Across CDN Interconnections.
  - Feedback Received:
    - Specific case for CDNi only & Would Require Descriptions of CDN Interconnection Architectures
    - Possible Conflict with CDNi WG
- Atlanta 2012 – Revision 1 Preempted 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 Changes:***
  - *New Use Case added (Section 3.5)*
  - *Requirements in all Use Cases rewritten as Guidelines*

# Chained AMT Tunnels in AD-2 (New Use Case - Section 3.5)

- Motivation for New Use Case is based on Use Case 4:
  - AD-1 is Multicast Enabled
  - AD-2 is Not Multicast Enabled
  - Long AMT Tunnel setup between AMT Gateway in EU device & AMT Relay in AD-1
- Implications:
  - “Long” AMT Tunnel traverses across entire AD-2 domain
  - Multiple AMT Tunnels across peering point could create bandwidth utilization issues

# Chained AMT Tunnels in AD-2

Observation: This diagram is MUCH NICER than figure in the I-D



# Chained AMT Tunnels in AD-2

- AMT Tunnel Chains:
  - Single AMT Tunnel across peering point between AD-1 AMT Relay & AD-2 AMT GW/Relay
  - AMT Tunnels between AD-2 peering point AMT GW/Relay & other AMT GW/Relay locations on AD-2 Domain Edge
  - Short AMT Tunnels between Edge AMT GW/Relays & EU devices
- Advantages:
  - Bandwidth utilization improvement across peering point (single stream in AMT tunnel)
  - Significant bandwidth resource utilization improvement within AD-2 due to fewer AMT tunnels.
- Implications – Need an efficient capability for determining “optimal” AMT Gateway ⇔ Relay pairs for establishing Chained Tunnels → *draft-nortz-mboned-amt-dns-00.txt*

# Use Case Guidelines

- Revision 3:
  - Requirements listed with Each Use Case for successful implementation of Use Case architecture.
  - Input Received: Requirements are “HARD” rules – Suitable for RFCs.
  - Given that this is a BCP document, it would be better to describe “SOFT” guidelines.
- Revision 4 – Requirements are replaced with Guidelines.

# Next Steps

- Complete Section 4 – Supporting Functionality Best Practices
- Request Comments on New Draft Text

Thank You