

# Common API for Transparent Hybrid Multicast draft-irtf-samrg-common-api - Status Update –

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# History of the Draft

- o Version 00/01 presented at IETF 76, Hiroshima
- o Adopted as WG document @ Beijing
- o Update version 05 submitted January 2011
- o Update version 06 submitted March 2011
- o First WG draft March 2011: draft-irtf-samrg-common-api
- o Update version 01 submitted March 2011
  - Presented @ IETF 80 Prague
- o Update version 01 (shortly before IETF 81)  
and version 02 (during IETF 81) July 2011

# Status of the Draft: Overview

## Changes from last presentation

- o Added use case of multicast flavor support
- o Restructured Section 3
- o Major update on namespace and mapping
- o Pseudo Syntax for lists objects changed
- o C signatures completed
- o Many clarifications and editorial improvements

# Use Case of Multicast Flavor Support

- o URI scheme uniformly supports different flavors of group communication independent of service deployment
  - ASM, SSM, selective broadcast etc.

## **Example SSM:**

- o Multicast name: sip://new@cnn.com
- o Mapping according to one of the following mechanisms:
  1. Direct mapping to (S,G) on the IP layer
  2. Resolve first S for subsequent group address query
  3. Apply overlay mechanisms
  4. Delegating to a plain replication server (S)

# Major Update on Naming

- o “Functional Details/Namespace” (Section 5) integrated into “Overview” (Section 3)
- o Remember: Namespaces are expressed by the scheme field (e.g., sip://...)

## **New:**

- o Namespaces are grouped
  - Generic namespaces (IP, SHA-2, Opaque)
    - o OLM replaced by SHA-2
  - Application-centric namespaces (SIP, RELOAD)

# Major Update on Mapping

New subsections:

1. Canonical Mapping (default mapping)
  - `ip://224.1.2.3:5000` mapped to ASM `224.1.2.3/ff0e::224.1.2.3`
  - Bound to technology, not always applicable
2. Mapping at End Points
  - Mcast members require Name-to-Address conversion
  - End points may learn Group Address by neighboring nodes
  - If learnt, end points can autonomously invert the mapping
3. Mapping at Interdomain Multicast Gateways
  - IMG is required to re-address packets for another technology
  - Consequence: IMG needs to know Group Name

# Update Pseudo Syntax for List Objects

- o List of elements is denoted by `<>`
  - Example: `out Interface <ifs>`
- o Previous description used explicit parameter to express size of the list
  - `out int numIifs, out Interface <ifs>`
- o Now: Syntax assumes that list includes an attribute that represents the number of elements
- o Reason: Improved readability

# ... Apropos Readability – Any Opinions?

There is one open question:

*Should we include error values in the pseudo syntax?*

Yes – Pro:

- o Minimal error behavior defined

Yes – Con:

- o Reduced readability
- o Abstract API description does not require such details



# Clarifications – Port & Group Name

- o **Group Name consists of** `scheme "://" group "@" instantiation ":" port`
  - `instantiation` and `port` are optional
- o **Port must be part of the Group Name**
  - Distinguishes groups in direct mapping

# Thank you ...

- o Please, read the current version
- o We intend to finalize the draft
- o **More feedback** is needed by RG members!