MAC Address Acquisition Protocol

MAAP

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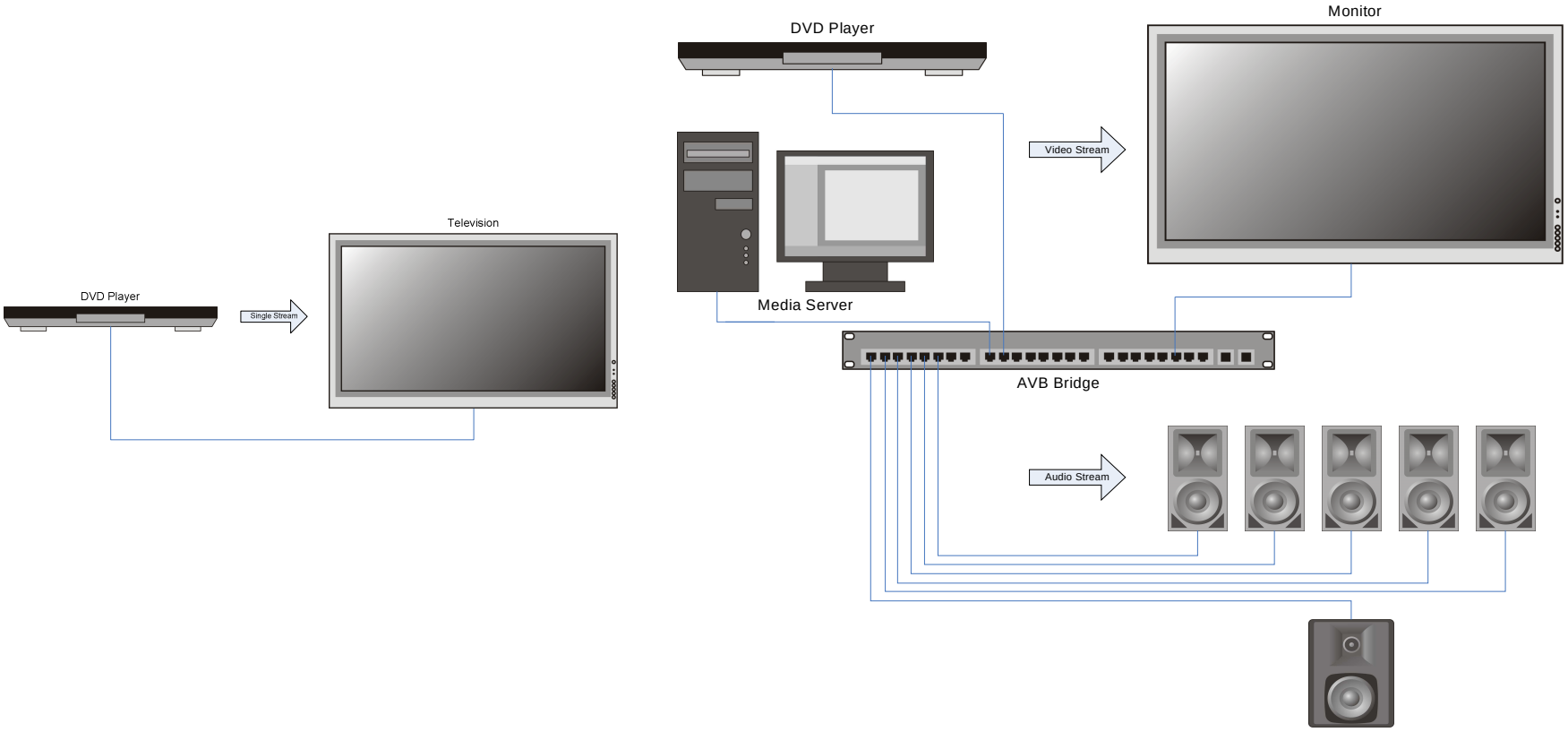
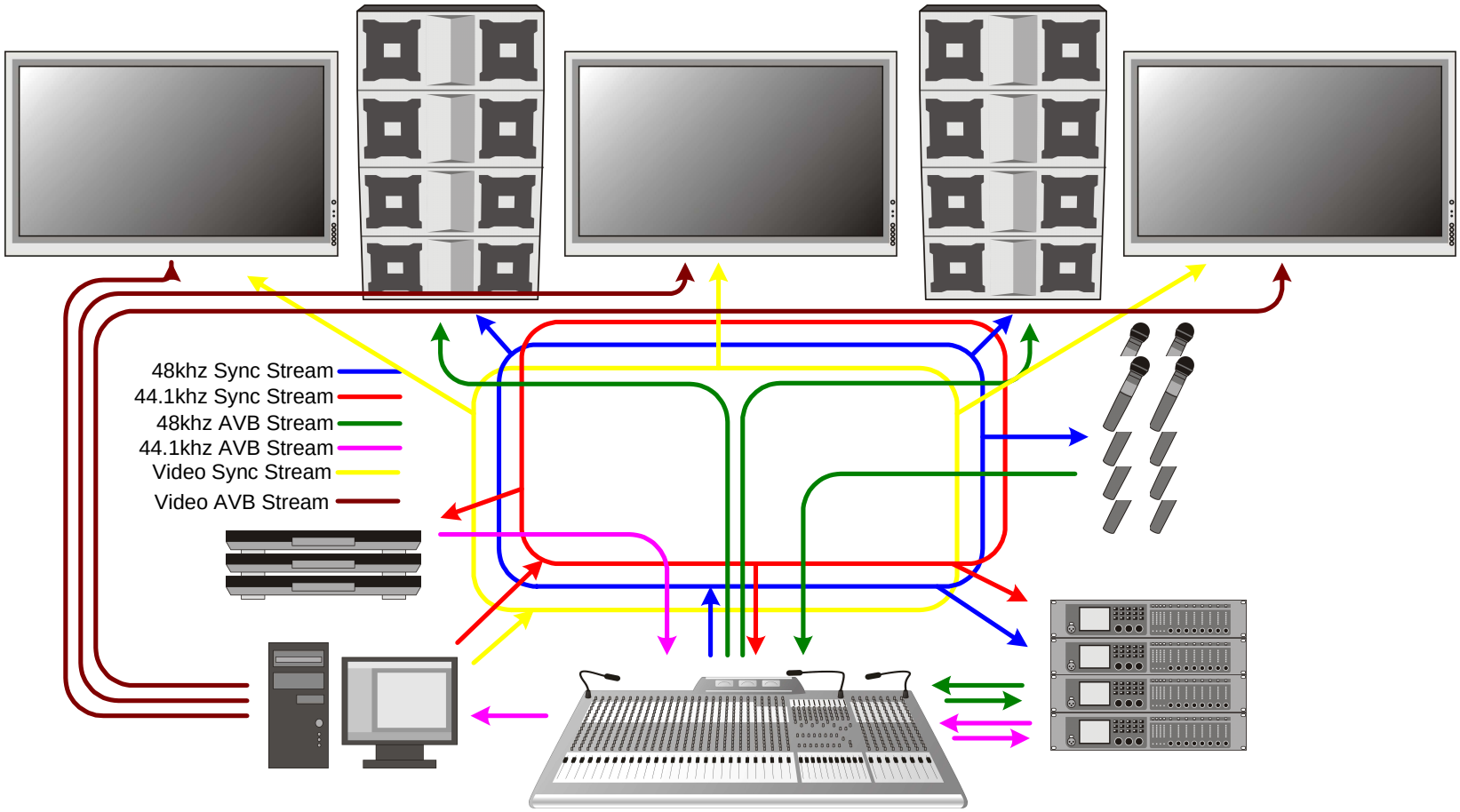
MAAP Overview

- IEEE 1722 needs a mechanism to dynamically allocate Talker Addresses
- No suitable industry standard mechanism currently exists
- Must be suitable for very small networks (2 nodes)
- Must be flexible enough to support large engineered networks
- Need a mechanism to allocate consecutive (MSRP optimized) addresses

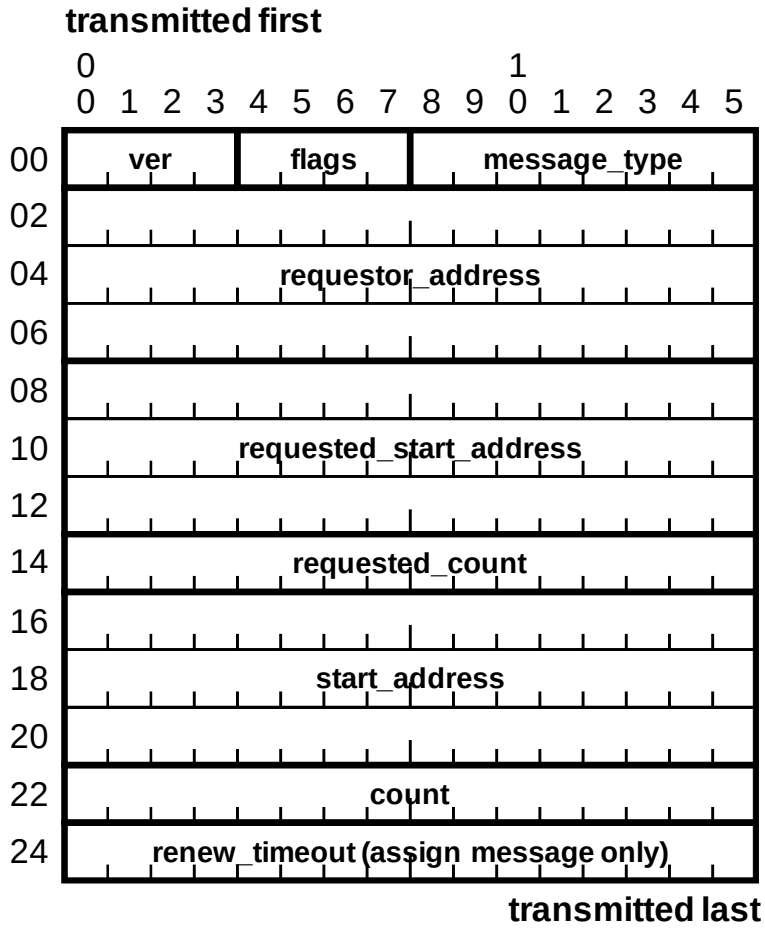
Peer to Peer Mode



Server Mode


48khz Sync Stream
44.1khz Sync Stream
48khz AVB Stream
44.1khz AVB Stream
Video Sync Stream
Video AVB Stream

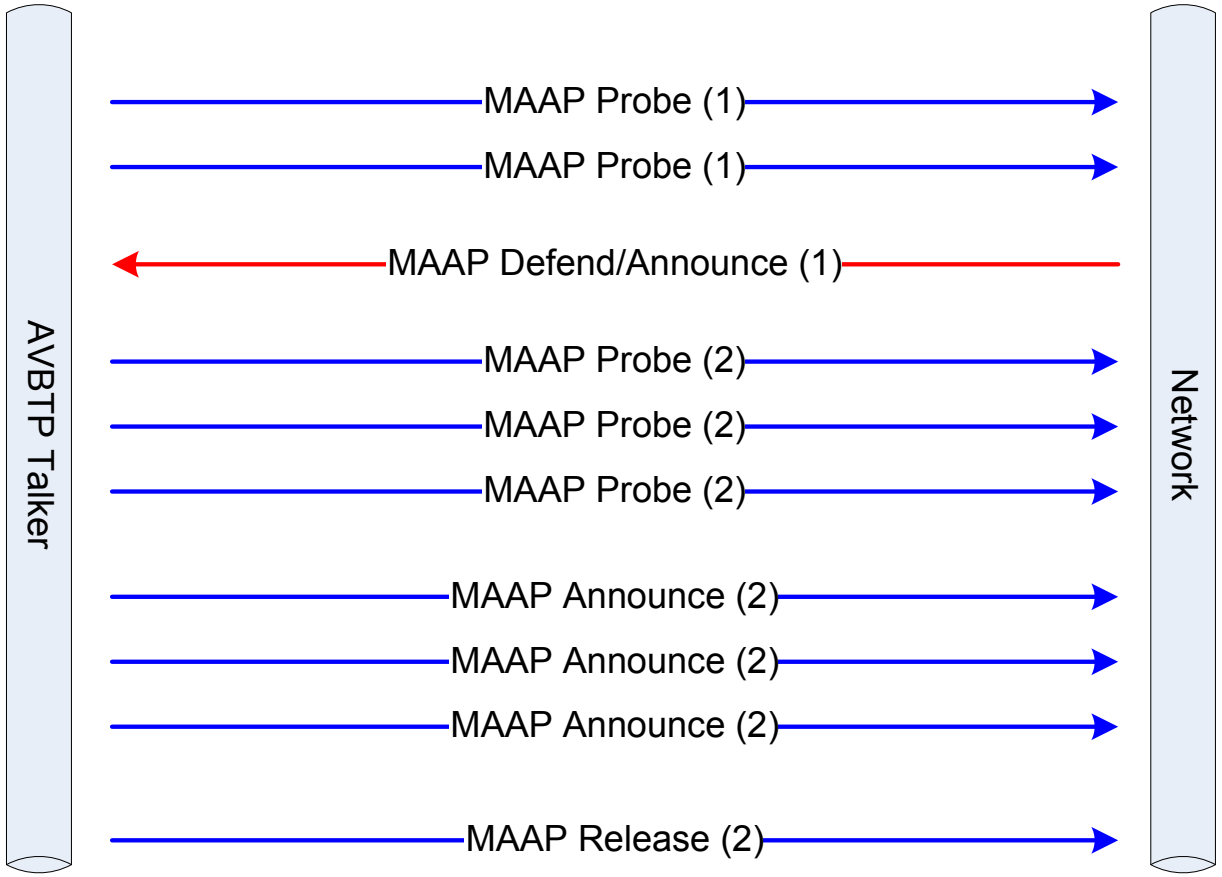
Packet Format



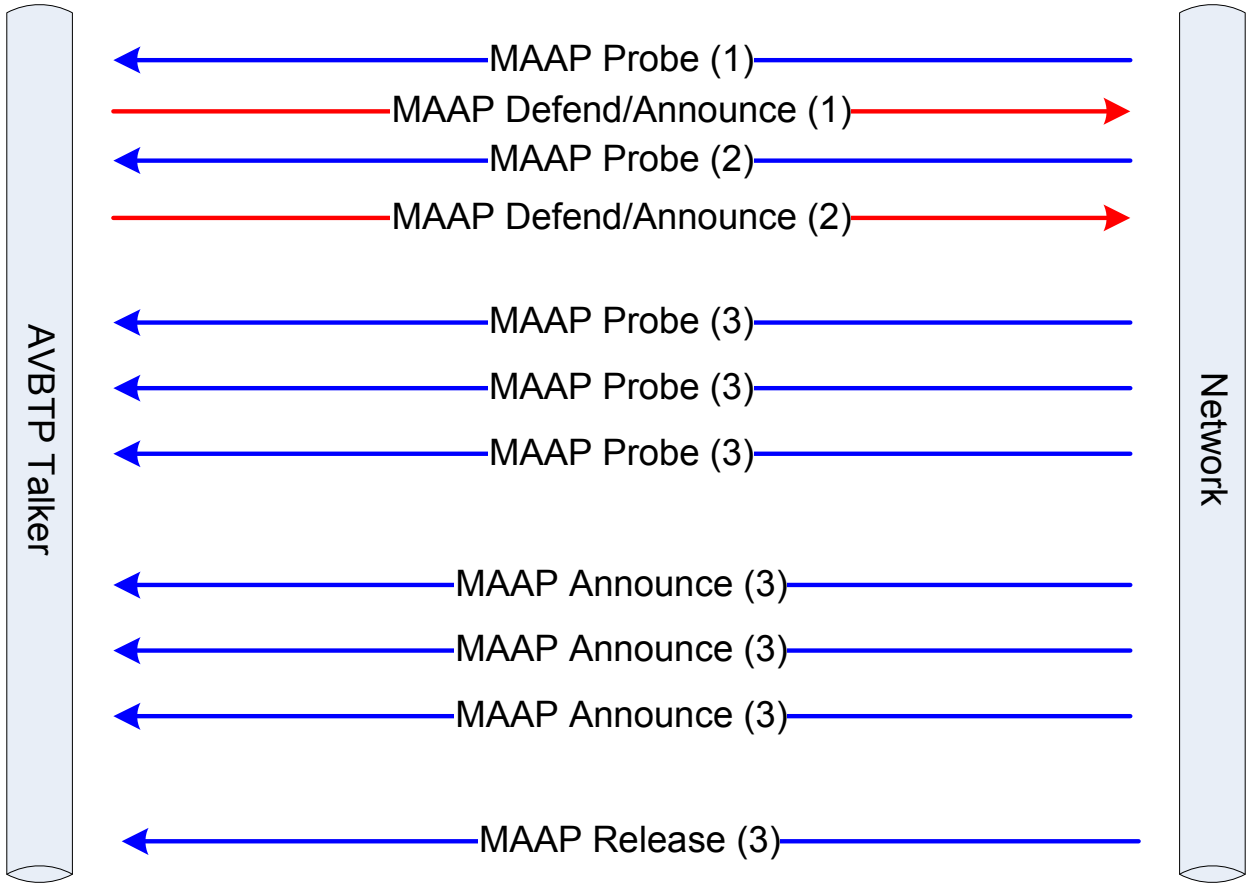
Message Types

1	MAAP_PROBE	Probe MAC address(es) frame
2	MAAP_DEFEND	Defend address(es) response frame
3	MAAP_ANNOUNCE	Announce MAC address(es) acquired frame
4	MAAP_RELEASE	Release MAC acquired address(es)
5	MAAP_ASSIGN	Assign MAC address(es) command
6	MAAP_UNASSIGN	Unassign MAC address(es) command

Peer to Peer Request



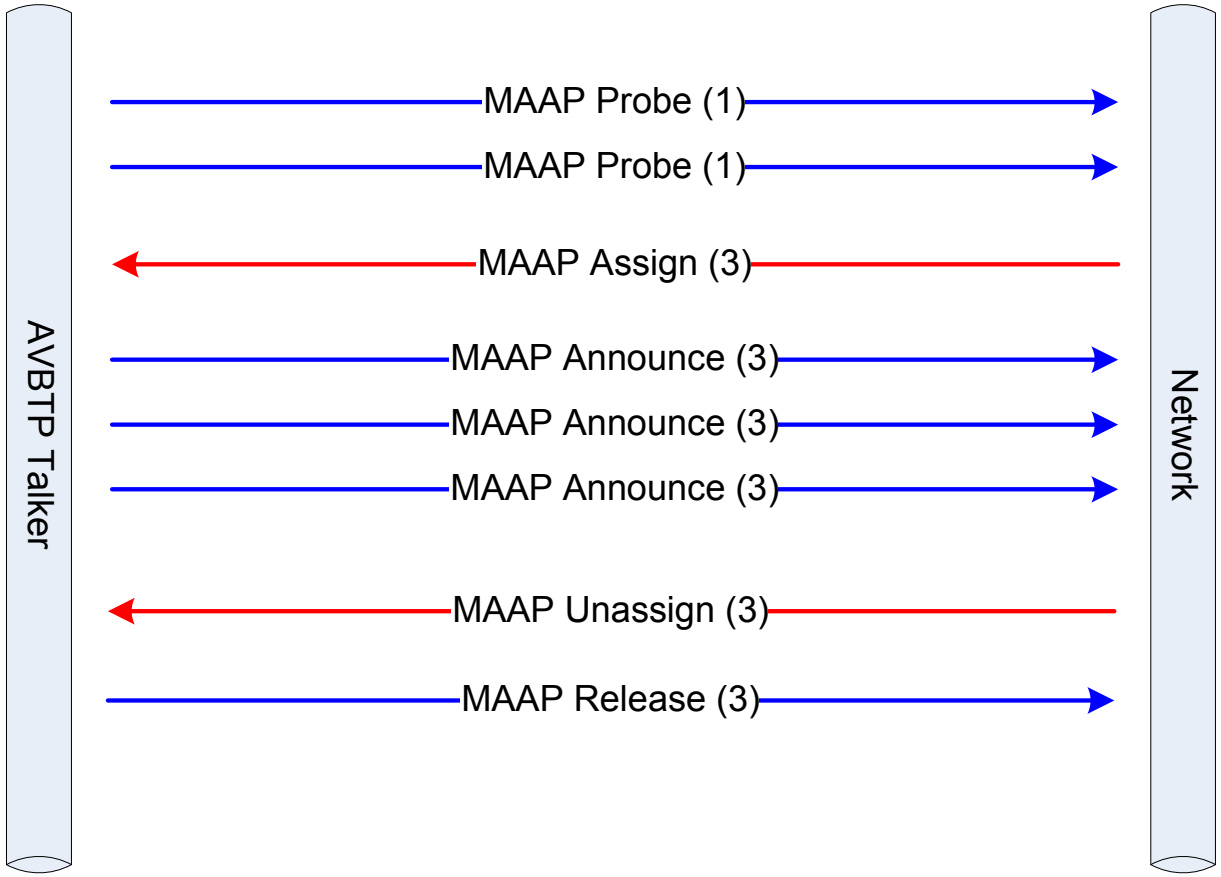
Peer to Peer Defend



Peer to Peer Mode

- Requested addresses are from a unique address set for MAAP use only
- Blocks of consecutive addresses can be requested (MSRP friendly)
- Talkers remember addresses that have previously been assigned to them
- Selection of new addresses is random
- Probe Interval is randomized

Server Request



Server Mode

- Talkers must accept assigned address
- Server may assign requested address
- Addresses can be assigned for a limited time
- Talkers must release unassigned address

References

- http://grouper.ieee.org/groups/1722/
- http://grouper.ieee.org/groups/1722/contributions/avbtp-bartky-p1722-v1-1-2008-08-25.pdf