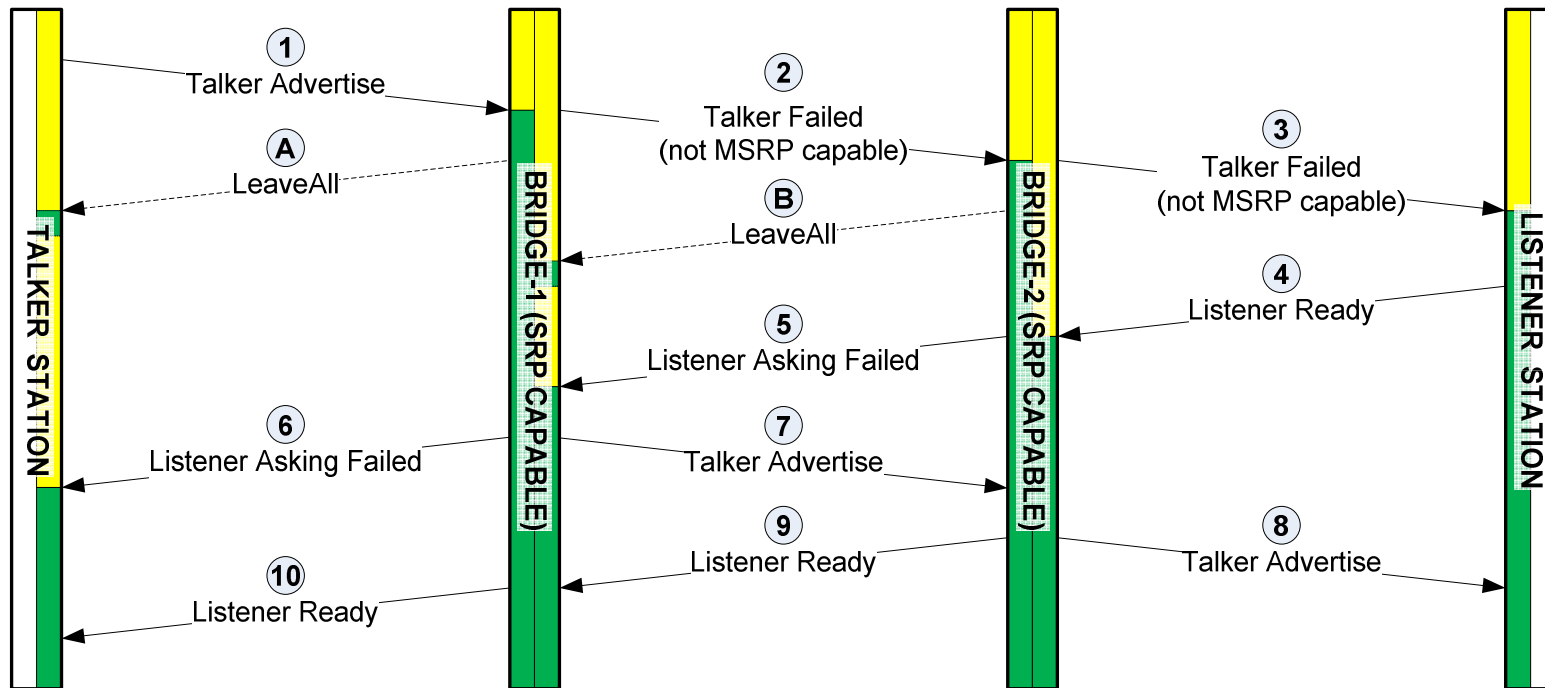


## SRP Domain Port processing

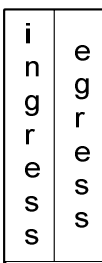
**Craig Gunther** ([craig.gunther@harman.com](mailto:craig.gunther@harman.com))

8 September 2009

# SRP Domain Core Port discovery



Legend:



SRP domain boundary port

SRP domain core port

# SRP Domain Port processing

- All ports are initialized as SRP Domain Boundary Ports (yellow). As soon as a port receives an MSRP declaration it will change to an SRP Domain Core Port (green)
- Once ports become Core Ports they do not revert back to Boundary Ports unless there is a link status event, a Spanning Tree change, or some other action that changes the ports status

# SRP Domain Port processing-2

- Notice that the Talker Advertise (1) is changed into a Talker Failed (2) by Bridge-1, which inserts its own BridgeID along with a Failure Code 9 (i.e. egress port is not MSRP capable)
- Bridge-2 simply forwards the Talker Failed (3) from Bridge-1

# SRP Domain Port processing-3

- Eventually the Listener Ready (4) makes its way via a ListenerAskingFailed (5) to Bridge-1
- Bridge-1 then marks that port as an SRP Domain Core Port, which reruns the MAP algorithm and changes the Talker Failed (2) to a Talker Advertise (7)
- At about the same time Bridge-1 forwards the Listener Asking Failed (6) to the Talker

# SRP Domain Port processing-4

- Bridge-2 receives the Talker Advertise (7) and subsequently changes the Talker Failed (3) to a Talker Advertise (8)
- At about the same time it also creates the reservation and changes the Listener Asking Failed (5) to a Listener Ready (9)
- This Listener Ready (9) reaches Bridge-1, which also creates a reservation and changes the Listener Asking Failed (6) to a Listener Ready (10)

# SRP Domain Port processing-5

- When the Listener Ready (10) reaches the Talker Station the Talker may begin streaming the A/V data immediately

# SRP Domain Port processing-6

- It is also important to understand that the LeaveAll (A & B) mechanism of MRP can also cause a port to change from a Boundary port to a Core port
- LeaveAll's occur periodically every 10 to 15 seconds
- Perhaps MSRP should issue a LeaveAll as soon as a port becomes active, which would speed up the entire Core vs Boundary port discovery process



# Boundary to Core and back

- As shown, Boundary Ports become Core Ports when the port receives an MSRPDU
- Core Ports change back into Boundary Ports when the port is no longer active, for example:
  - Link status drops
  - Spanning Tree disables the port
  - Management disables the port

# SRP Domain Boundary Port behavior

- MSRP declares attributes out Boundary and Core Ports
- This is how the ingress port on Bridge-2 realizes that its neighbor (Bridge-1) is MSRP capable
- MSRP declarations on Boundary Ports use the MRP Application Address 01-80-C2-00-00-22 so that the neighbor bridge will pass them up to their resident MSRP application