

# Conversation Sensitive Collection and Distribution in a nutshell

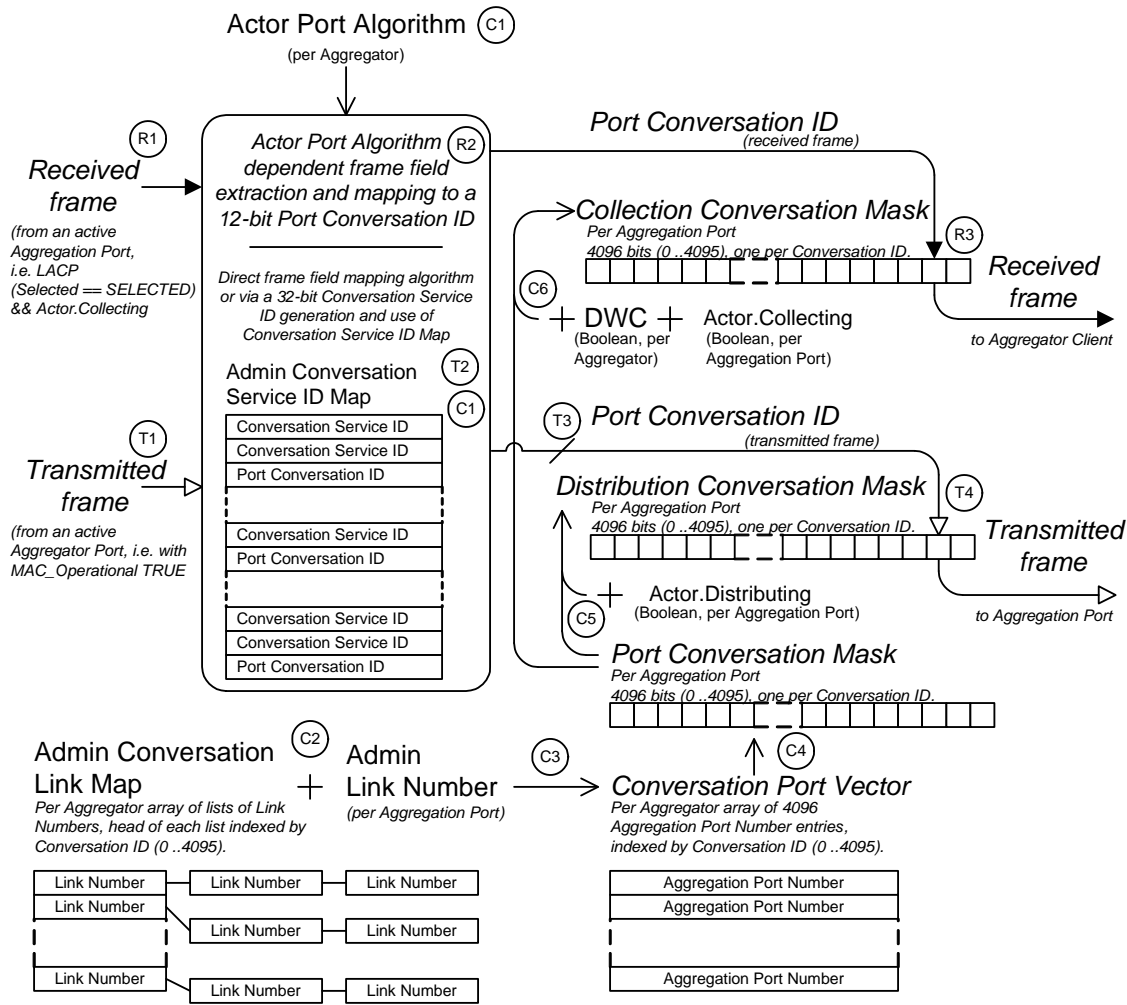
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This note attempts to summarize the operation of Link Aggregation Conversation Sensitive Collection and Distribution, mainly in a single Figure. I developed it mainly for my own use but thought it worth sharing.

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See the figure on the next page. A further revision may add notes if time permits.

# CSCD in a nutshell



- Receive:** R1. Frame received on Aggregation Port that is active in LAG.  
R2. The Actor Port Algorithm for the Aggregation Port's Aggregator uses received frame fields to determine the frame's Port Conversation ID.  
R3. The Port Conversation ID is used to lookup a bit (Boolean value) in the receiving Port's Collection Conversation Mask. If TRUE the frame is passed to the Aggregator Client.
- Transmit:** T1. Frame transmitted by the Aggregator Client.  
T2. The Actor Port Algorithm for the Aggregator uses the frame's fields to determine the frame's Port Conversation ID.  
T3. The frame and its Port Conversation ID are passed to all the Aggregation Ports attached to the Aggregator.  
T4. The Port Conversation ID is used to lookup a bit (Boolean value) in the each Port's Distribution Conversation Mask. If TRUE the frame is transmitted through that Aggregation Port.
- Control:** C1. The Actor Port Algorithm is configured for each Aggregator.  
C2. The Admin Conversation Link Map is configured for each Aggregator, as is Admin Link Number for each Aggregation Port.  
C3. The operational Link Number (the Admin Link Number of the higher priority System participating in the LAG) and the Link Number for the first Aggregation Port in each of the Admin Conversation Link Map's per Conversation ID lists is used to create (and update) the Conversation Port Vector for each Aggregator.  
C4. The Conversation Port Vector is used to create (and update) the Port Conversation Mask for each Aggregation Port attached to the Aggregator. At most one of these Port Conversation Masks has the value TRUE for any given Conversation ID.  
C5. Each Port Conversation Mask is "pushed" to its Aggregation Port's Distribution Conversation Mask, i.e. the latter are updated in a way that ensures that only one of them has the value TRUE for any given Conversation ID at any time, even if a conversation is being moved. If the Aggregation Port as a whole is not Actor\_Oper\_Port\_State.Distributing, the mask is zeroed to avoid a separate test for each transmitted frame.  
C6. The Port Conversation Mask is "pushed" to its Aggregation Port's Collection Conversation Mask, which is zeroed (to avoid the need for a separate receive test) if the Aggregation Port is not Actor\_Oper\_Port\_State.Collecting and also takes into account the configured state of DWC (Discard Wrong Conversation) and LACP shared Port Algorithm and Map digests to determine whether reception of frames with a given Port Conversation ID should be restricted to a single Aggregation Port.