



Graceful Name Change in LACP

Rev. 1

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References

- This is largely a rehash of `new-nfinn-light-nni-0710-v04.ppt`

Graceful name change

- There are occasions when a system would like to change its LACP system name without dropping and re-establishing an active aggregation.
 - Bridge brain failures resulting in a hot-standby brain taking over.
 - Configuration changes.
 - The “split brain” scenario.
- By transmitting an “Old Actor_System_Priority” and “Old Actor_System” TLV, the name of a system can be changed without bringing down an aggregation.

Graceful name change

- All that is needed is:
 - A means for **c**, **d**, and **e** to not disrupt the aggregation while **b** changes its name.
 - Assurance that **c**, **d**, and **e** will all pick the same Node (**a** or **b**) when Link a-b fails.
- The first can be accommodated by adding an “Old Actor_System_Priority” and “Old Actor_System” TLV to LACP. This allows a system to change its name without disrupting an ongoing aggregation.
- The second can be done by requiring **c**, **d**, and **e** to select the link with the lower numerical Actor_System_Priority and Actor_System to continue with the NNI.

Graceful name change

- Now, if Node **a** fails:
 - Nodes **c**, **d**, and **e**, all lose their Links to Node **a**, but continue to use the Links to Node **b**.
 - Node **b** changes its Actor_System name, but that causes no further disruption.
- If Node **b** fails:
 - Nodes **c**, **d**, and **e**, all lose their Links to Node **b**, but continue to use the Links to Node **a**.
- If Link a-b fails:
 - Node **b** changes its Actor_System name, and that causes Nodes **c**, **d**, and **e** to disaggregate from Node **b**.
 - Node **b** has no one to talk to.

Graceful name change

- If Node **a** recovers:
 - Nodes **c**, **d**, and **e**, all switch over to using Node **a**.
 - Node **b** changes its Actor_System name to match Node **a**'s name, so all Links are back in use.
- If Node **b** recovers:
 - Nodes **c**, **d**, and **e**, regain their Links to Node **b**.
- If Link a-b recovers:
 - Node **b** changes its Actor_System name to match that of Node **a**.
 - Nodes **c**, **d**, and **e**, return their Links to Node **b** to the aggregation.