

Extensions to RSVP-TE for Error Notification in GMPLS UNI

draft-ali-ccamp-gmpls-uni-error-notification-00.txt

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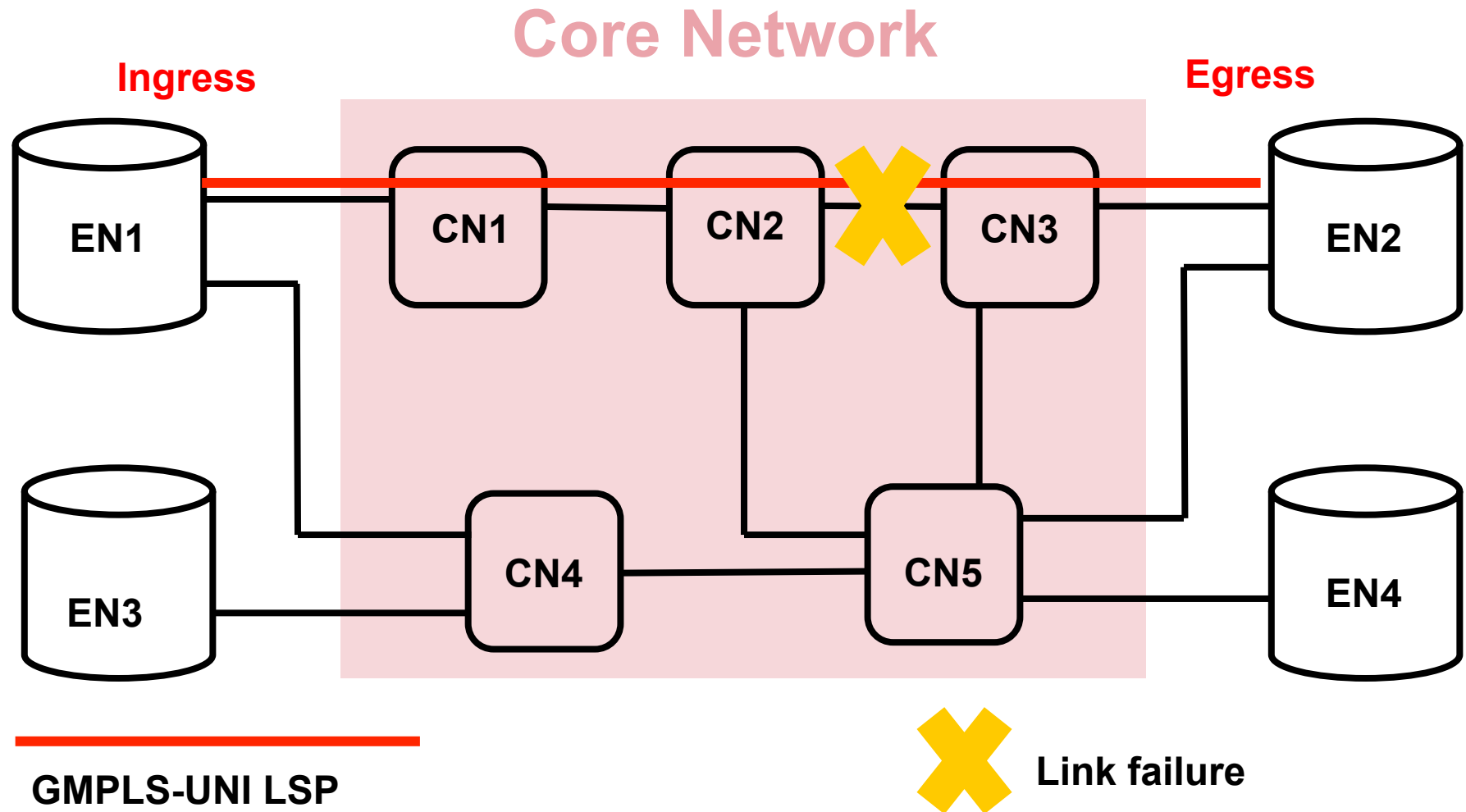
Outline

- **Problem Statement**
- **Solution**
- **Next Steps**

Reference Network

EN: Edge Node

CN: Core Node



Problems

1. Error notification: Edge nodes have no visibility into core topology

- Failed link address is unknown to them
- Core's policy may be to hide addresses and topology

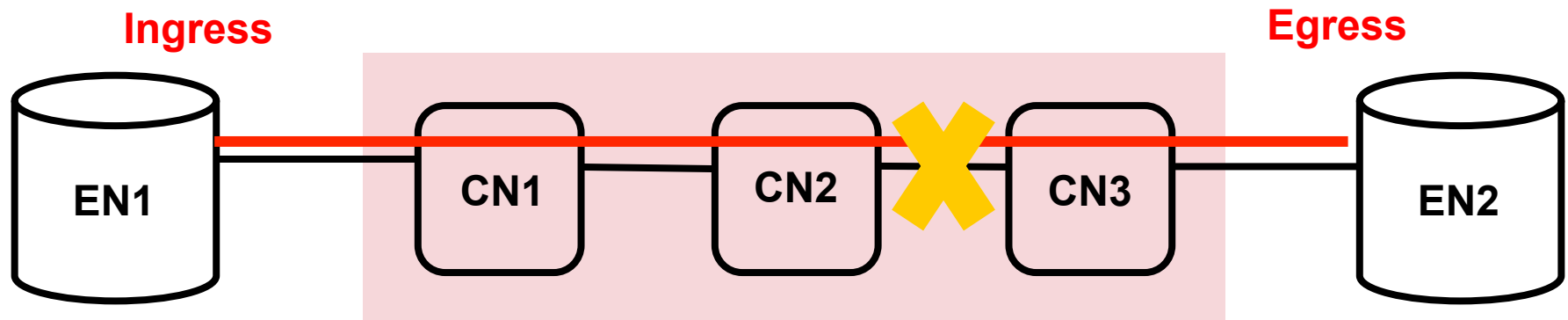
2. Recovery of GMPLS-UNI LSP after failure

- Repair within optical network
- Re-setup from ingress node
- How do we coordinate the two?
- These issues apply to GMPLS-UNI, and therefore fall within CCAMP's charter.

Solutions

- 1. Allow a node to change the address in a Path-Err message**
 - New flag to indicate that this has been done
- 2. New PathErr to allow core to inform edge that LSP repair has occurred**

Error signaling

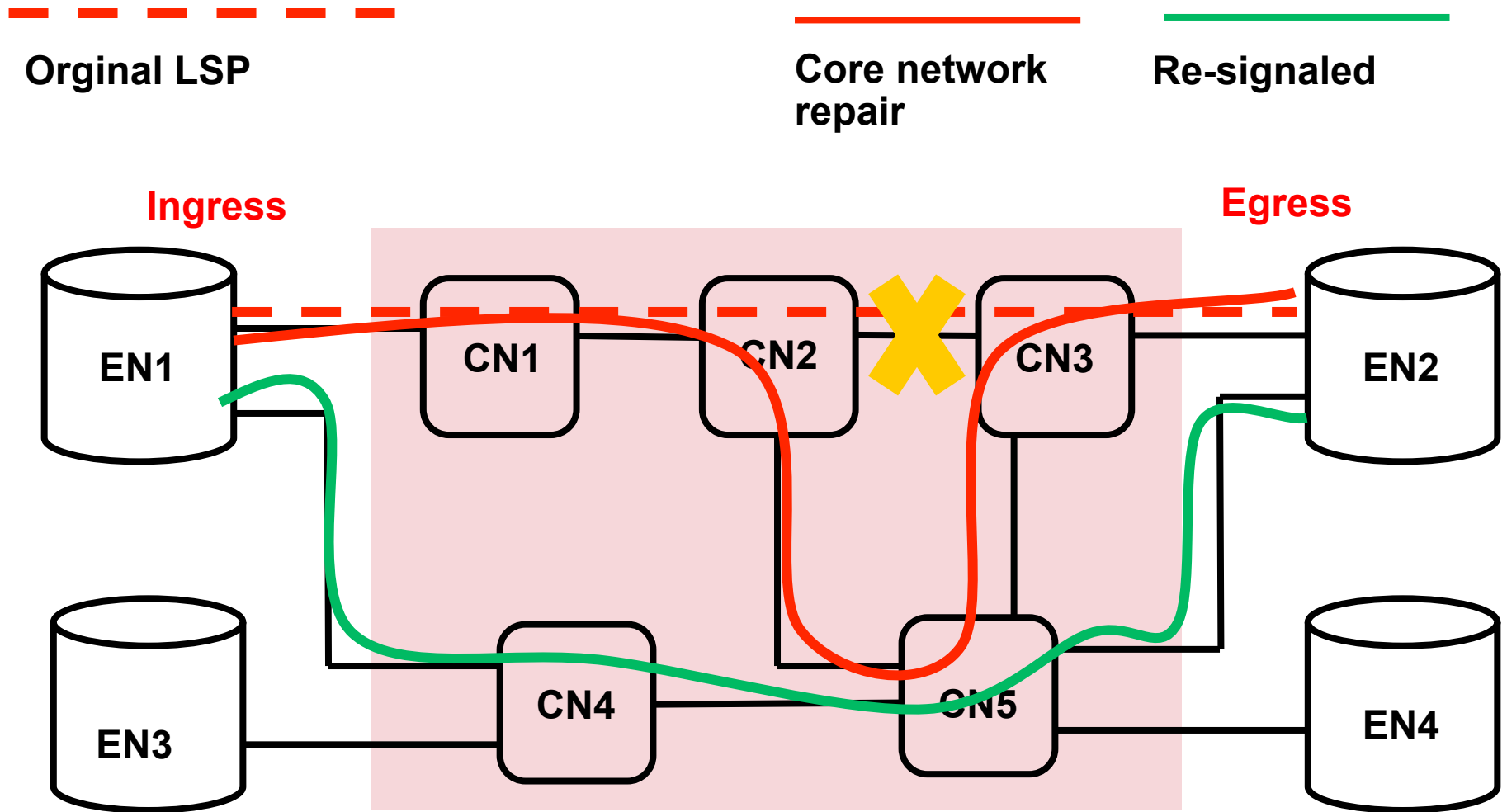


Perr: address: <CN2>

Perr: address: <CN1>
“Address-changed” flag set

Internal core topology
hidden from EN

Repair mechanisms



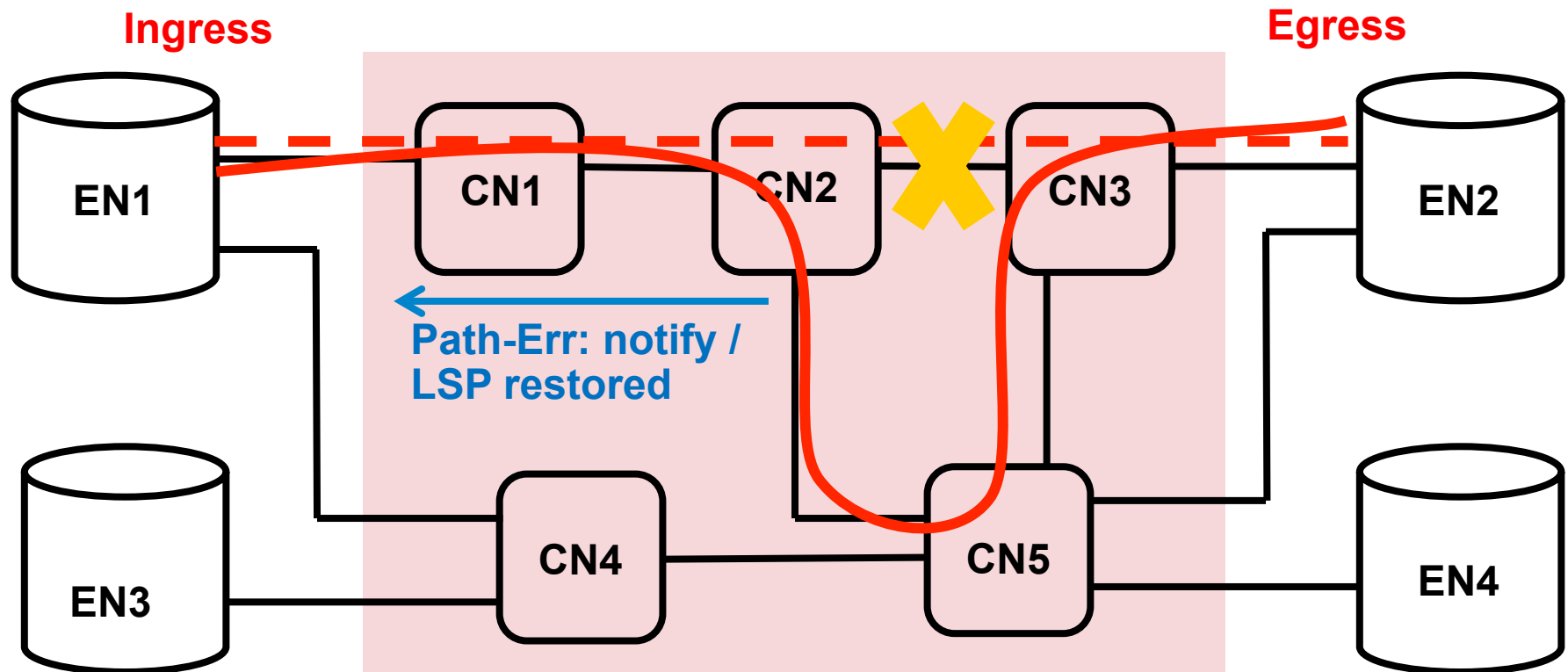
Either mechanism may be preferable; both together may not be.

Repair mechanisms

Original LSP

Core network repair

Path-error allows notification of repair by core network



Original LSP signaled with protection requested:
Protection Object, LSP flags 0x01 (full rerouting)

Next Steps

- **This is the first presentation of this draft**
- **We would like to move the draft towards WG adoption**



Thank You.