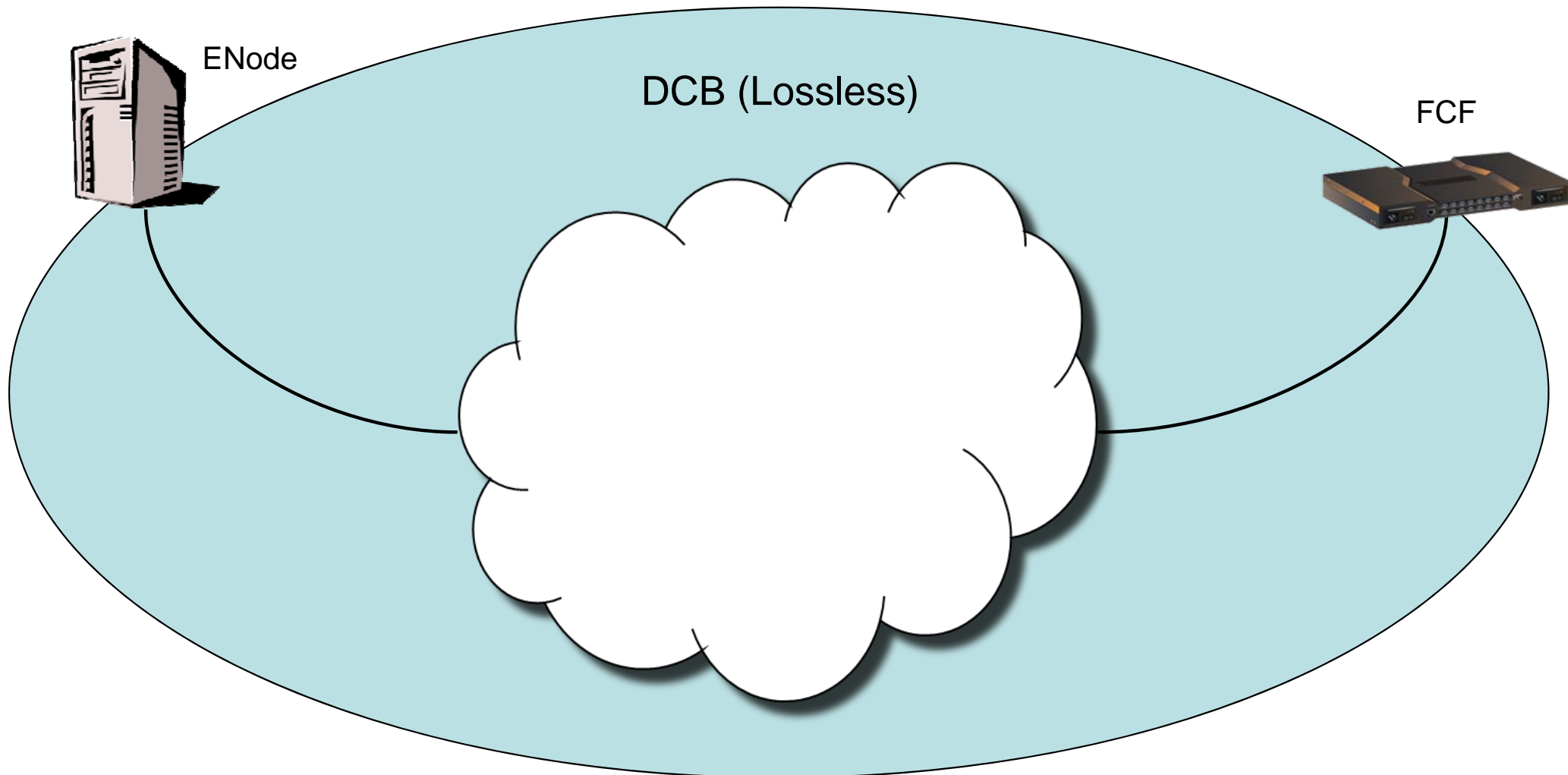




# FCoE Path Potholes

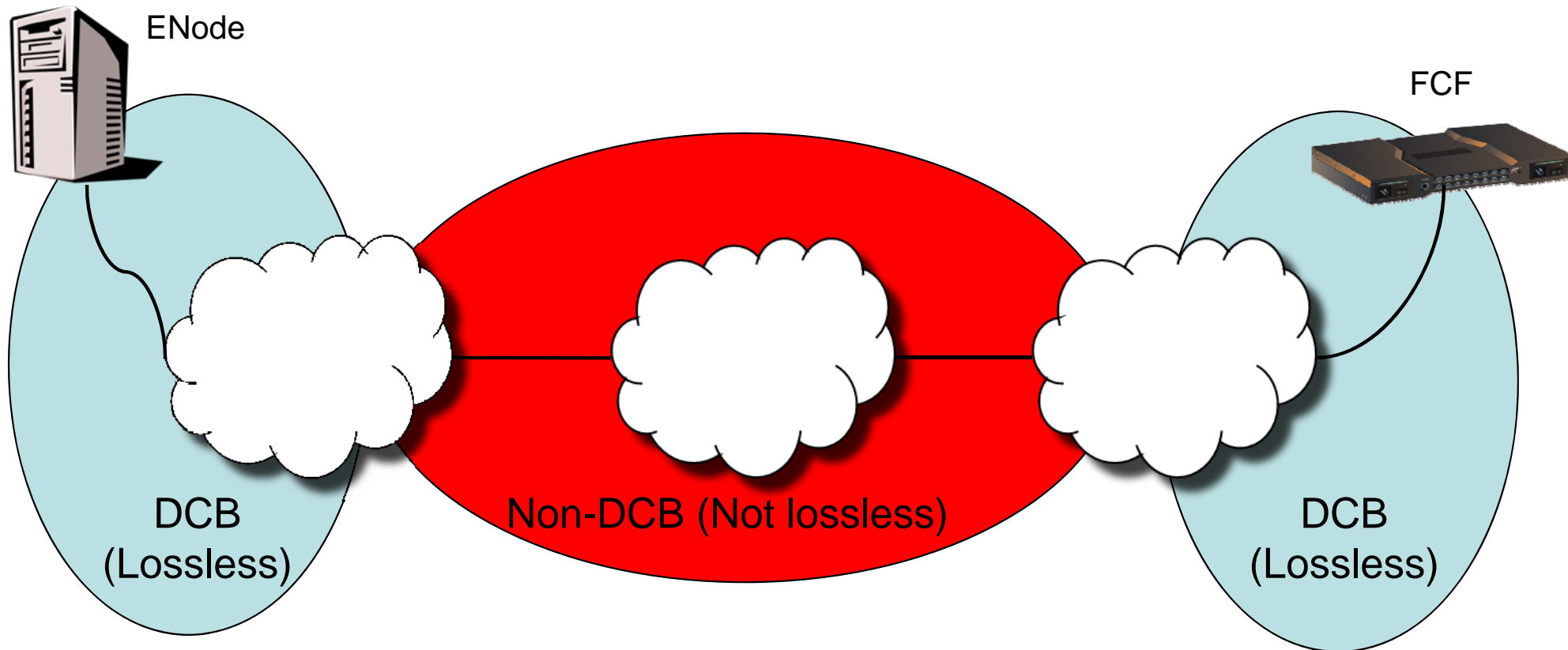
**Craig W. Carlson**  
**Ed McGlaughlin**  
**Manoj Wadekar**

- **FC-BB-5 assumption...**



# The issue

- With larger deployments, possible issue...



- **For smaller (single-hop) configurations, mis-configuration is less likely**
- **For larger (multi-hop) configurations, higher possibility of mis-configuration**
  - Administrator uses a non-DCB switch in configuration
  - Administrator accidentally plugs a non-DCB network
  - A failed component causes a new path through non-DCB switch(es)
- **May not fail immediately**
  - Packet drop may not happen under light load
  - So, may be a long period of time until administrator is aware there is an issue

# The issue

- **And then!**

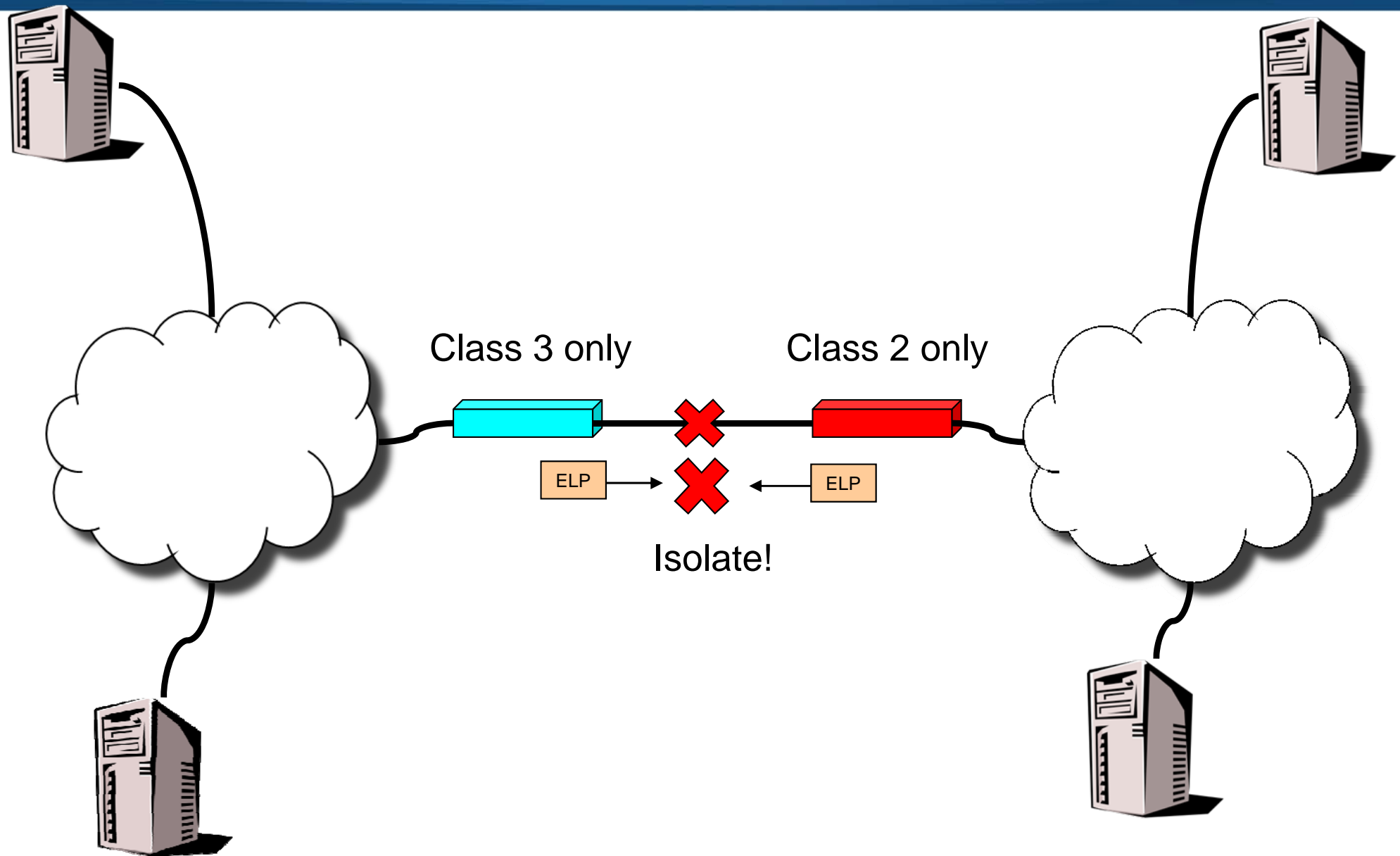


- **By design FC is deployed with all the same features in the path**
  - No drop – FC switches are designed with “no drop” behavior
  - Change detection/notification
    - Change detection is performed via FSPF, Name Server changes
    - Notification is done via RSCN

- **To deploy larger Ethernet configurations**
  - No drop
    - Need all links in the path to be DCB
  - Change detection/notification from ENode's perspective
    - Some change detection can currently be done through existing FCoE mechanisms
      - If an ENode disappears, this is detectable
    - A change in the path is not as easily detectable
      - This detection is especially important if the new path contains links that are not DCB ("No drop")

- **For determining an Ethernet path**
  - One could use a ping/Trace Route like mechanism
    - But, this only provides a snapshot – If the path changes one may not be aware of a non-DCB link
- **Best approach could be to use the existing FC mechanisms**
  - In a FC fabric, an un-compatible switch results in an isolation of that link
  - Could use a similar mechanism for FCoE – If a not DCB link is detected, it could be blocked for FCoE traffic

# FC Isolate



- **Idea is to do something similar for FCoE on a link basis**
  - Don't want to block all traffic, just FCoE traffic
  - Could use ACLs or name server isolation to accomplish this...
  
- **Thoughts?**



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