

# is-is support for openfabric

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# Goals & Components

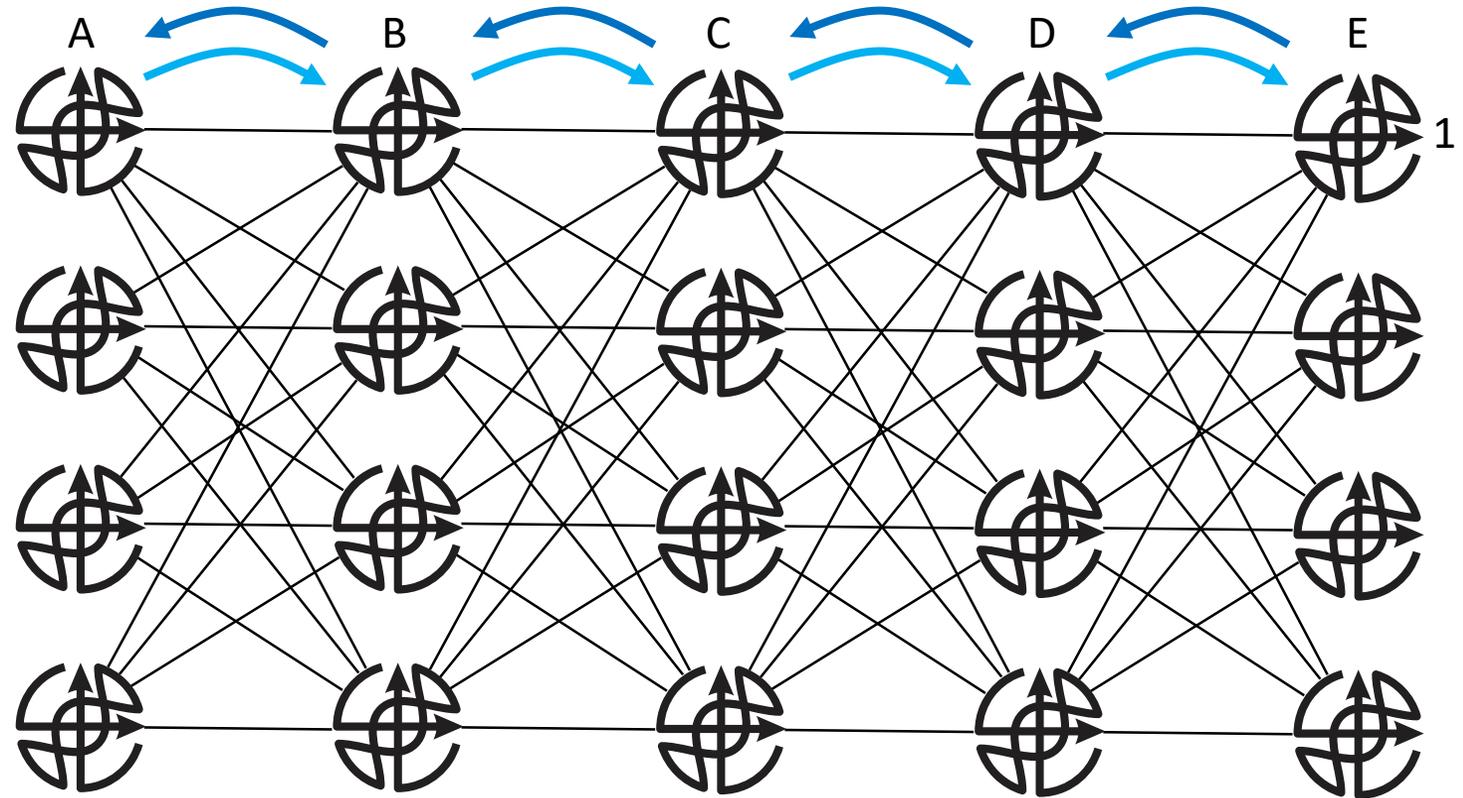
- Separate reachability from policy
- Minimize/eliminate configuration
- Link State
- Optimize Convergence
- Optimize Scale
- *Separate complexity from complexity*
  - Topology & policy are complex
- Distributed Control Plane
- Controller based policy overlay

# Distributed Protocol Goal

- Build the *simplest possible* distributed link state protocol
- *No policy*
  - Just carry reachability and topology
- *No configuration*
  - All configuration possible is “ephemeral”
- *No “extra stuff”*
  - Feature creep is a *real* problem at scale

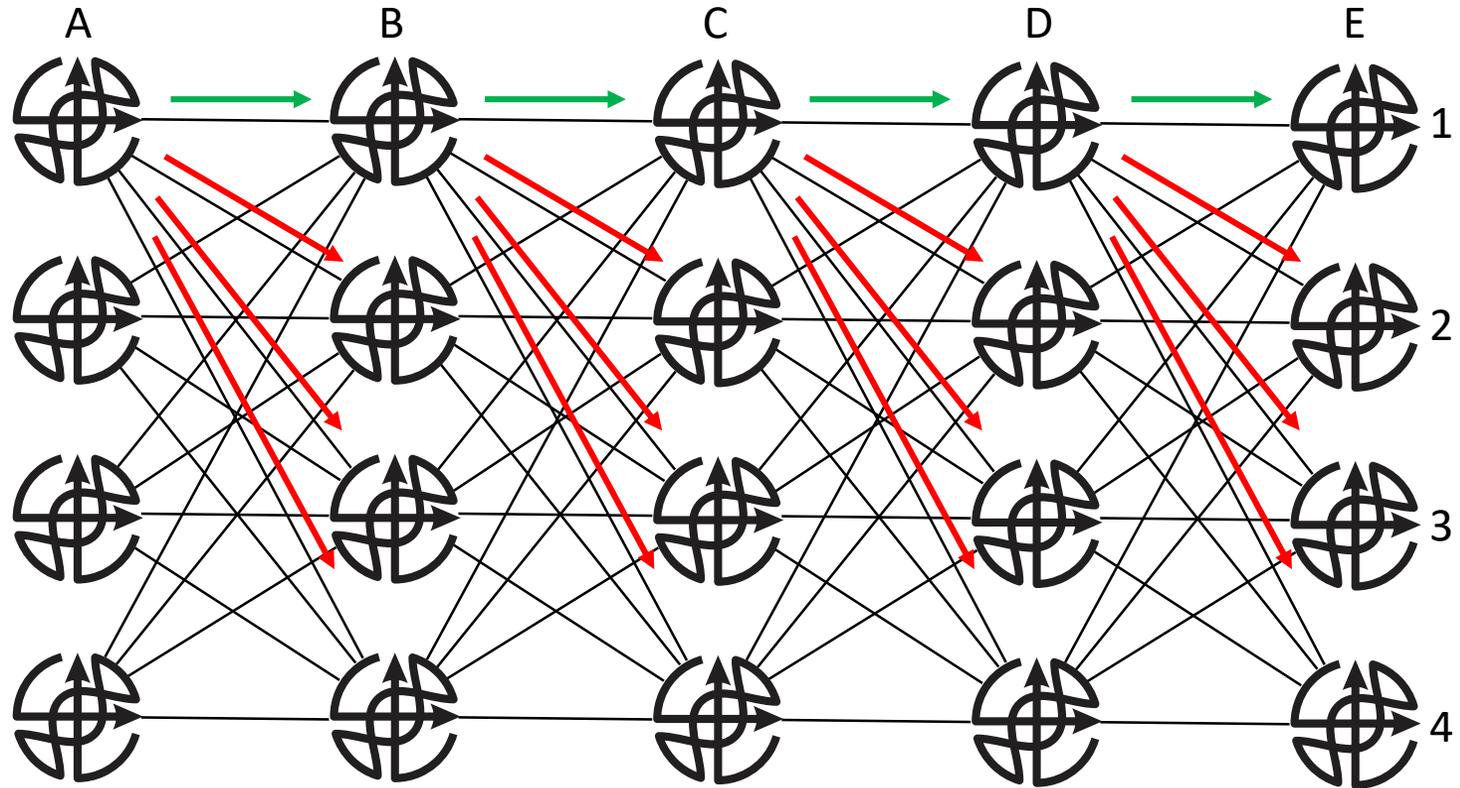
# Fabric Location

- hop count == spf with all metrics set to 1
- $x$  = hop count to someone who is T0
- $y$  = max path from the perspective of someone who is T0
- location ==  $y - x$



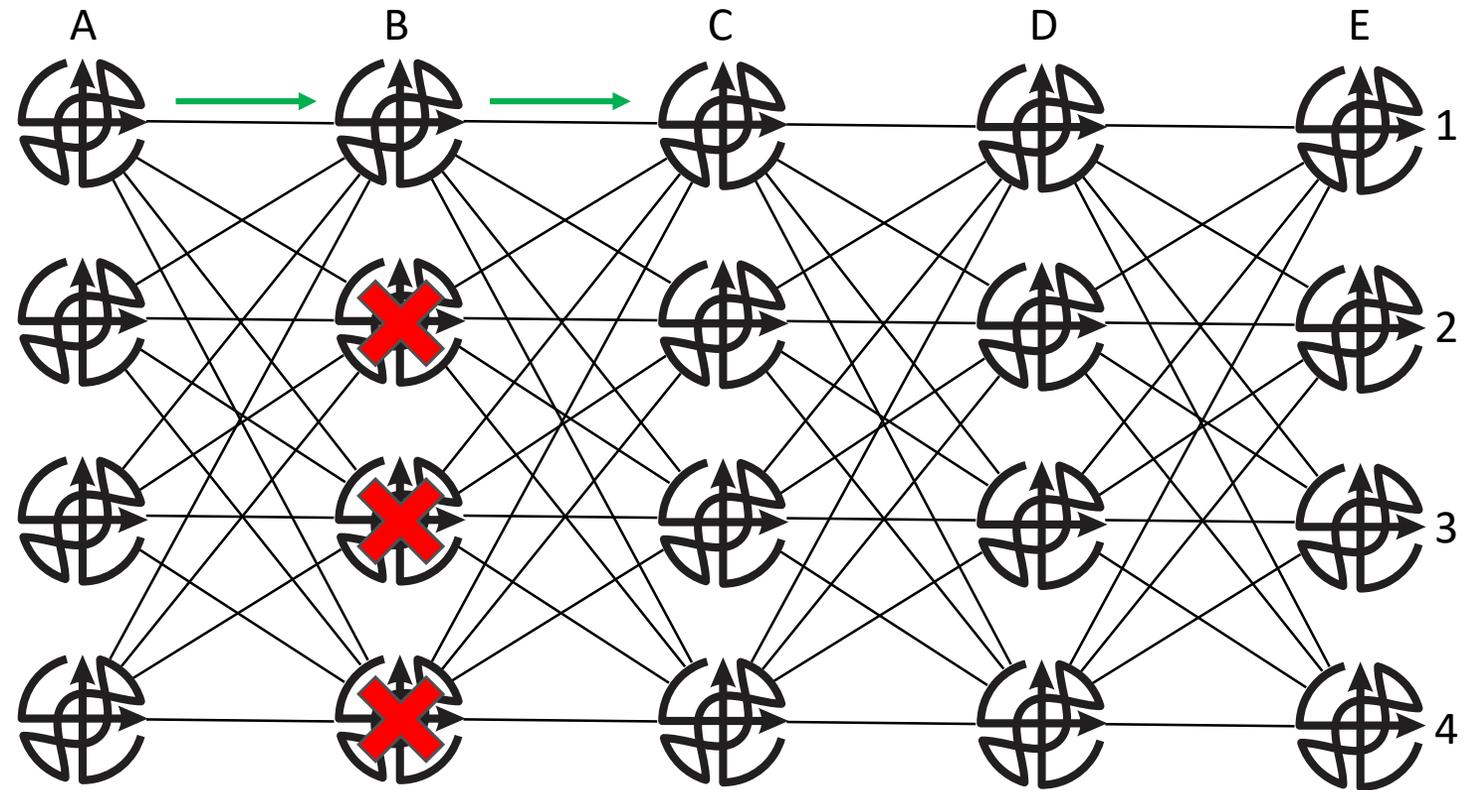
# Forward Optimization

- A1 runs SPF
- C1-4, A2-4 are two hop neighbors
- B1 chosen as flooder
- Flooded to B1 in normal LSP
- **Flooded to others in link local LSP (RFC7356)**



# Reverse Optimization

- do not flood to any neighbor on *any* shortest path towards the originator



# Once you know your location...

- Connect to controller
  - Either point to point or pub/sub
- Request services based on location
- Receive policy as needed
  - Through whatever southbound interface we eventually choose

# Current Status

- Working on an initial implementation
- Further updates to current drafts in the queue
  - We have received a lot of help from the community
  - See the contributor list
  - Thanks!