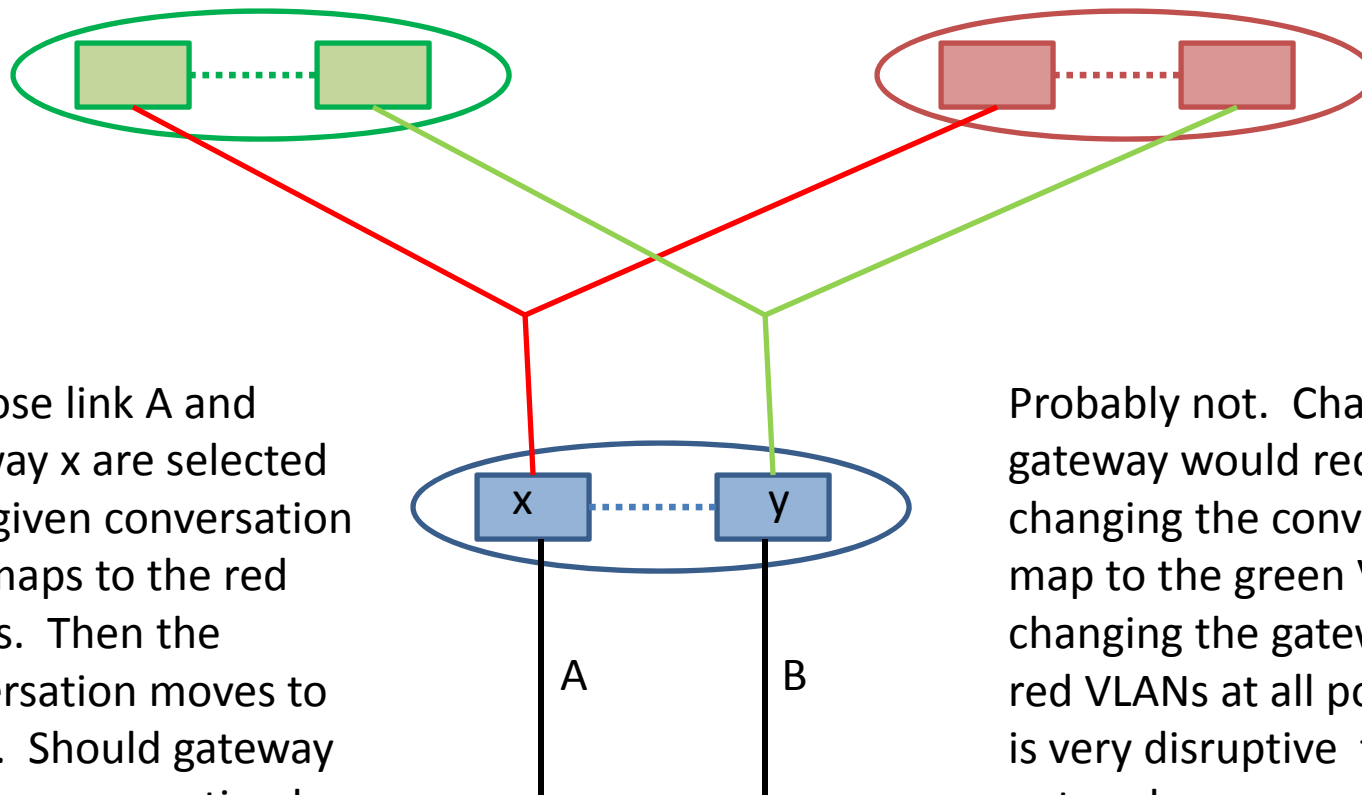# When should gateways change?

Version 1

Stephen Haddock

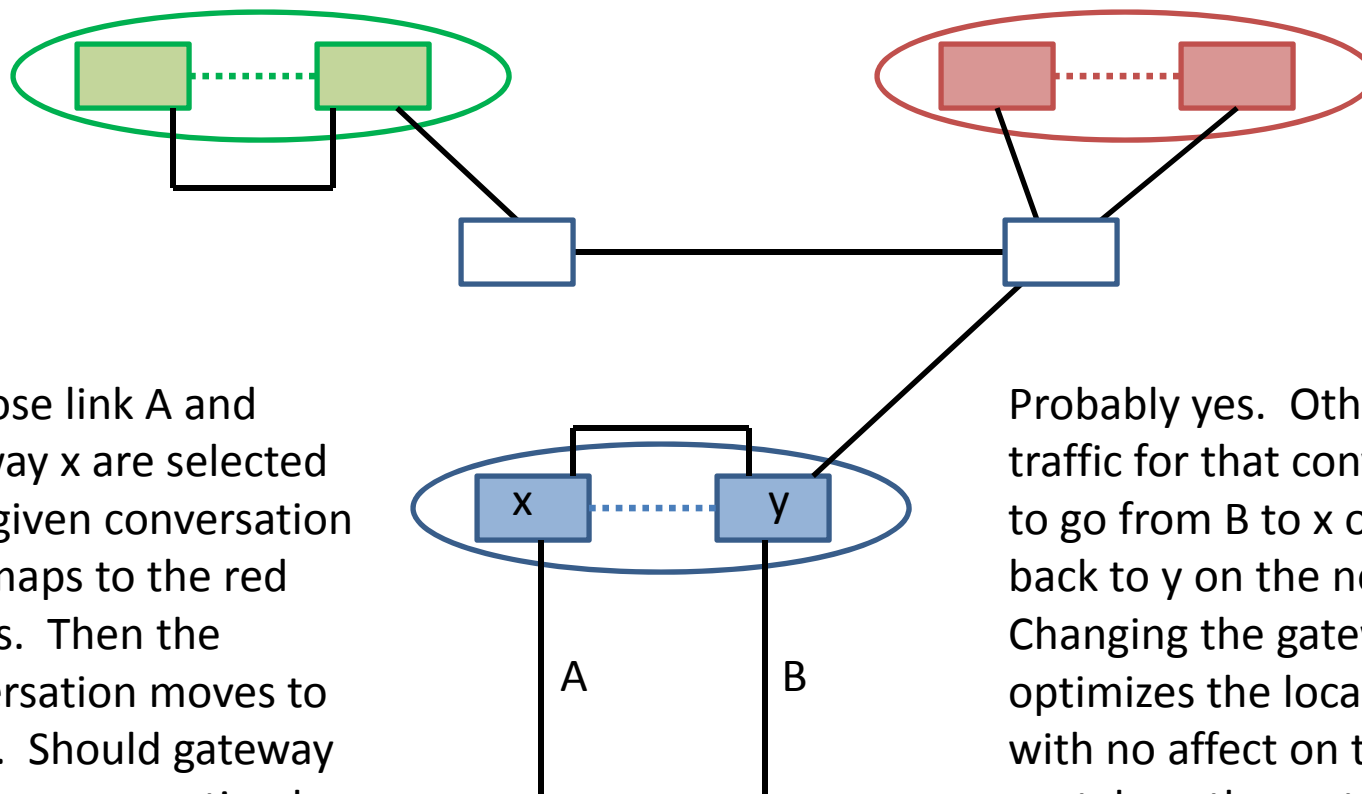March 19, 2014

Connectivity between Portals pruned to disjoint trees, one for "red" VLANs and one for "green" VLANs. (Norm's model from "buffer network" days.)

Suppose link A and gateway x are selected for a given conversation that maps to the red VLANs. Then the conversation moves to link B. Should gateway for the conversation be changed to y?

x y

A B

Probably not. Changing gateway would require either changing the conversation to map to the green VLANs or changing the gateway for all red VLANs at all portals. Either is very disruptive to the network.

Connectivity between Portal Systems is a spanning tree for all VLANs (as shown) or a ring.

Suppose link A and gateway x are selected for a given conversation that maps to the red VLANs. Then the conversation moves to link B. Should gateway for the conversation be changed to y?

x   y

A   B

Probably yes. Otherwise all traffic for that conversation has to go from B to x on the IPL and back to y on the network link. Changing the gateway to y optimizes the local traffic flow with no affect on the other portals or the rest of the network.