Phase 0: Initially, every node is a fragment...



... and every node is a root of a fragment

Phase 1: Find the MWOE for each node



Phase 1: Merge the nodes and select a new root



The new root is adjacent to a symmetric MWOE



Merging 2 fragments





Merging more than 2 fragments



After merging has taken place, the new root broadcasts **New fragment(w(e))** to the new fragment, and afterwards a new phase starts

e is the symmetric MWOE of the merged fragments



w(e) is the identity of the new fragment

In our example, at the end of phase 1 each fragment has its new identity.



At the beginning of each new phase each node in fragment finds its MWOE



To discover its own MWOE, each node sends a **Test** message containing its identity over its **basic** edge of min weight, until it receives an **Accept**



Then it knows its local MWOE



Then each node sends a **Report** with the MWOE of the appended subfragment to the root with convergecast (the global minimum survives in propagation)



The root selects the minimum MWOE and sends along the appropriate path a Merge message, which will become a **Connect** message at the proper node



Phase 2 of our example: After receiving the new identity, find again the MWOE for each fragment



Phase 2: Merge the fragments



At the end of phase 2 each fragment has its own unique identity.



End of phase 2

Phase 3: Find the MWOE for each fragment



Phase 3: Merge the fragments



Phase 3: New fragment



FINAL MST