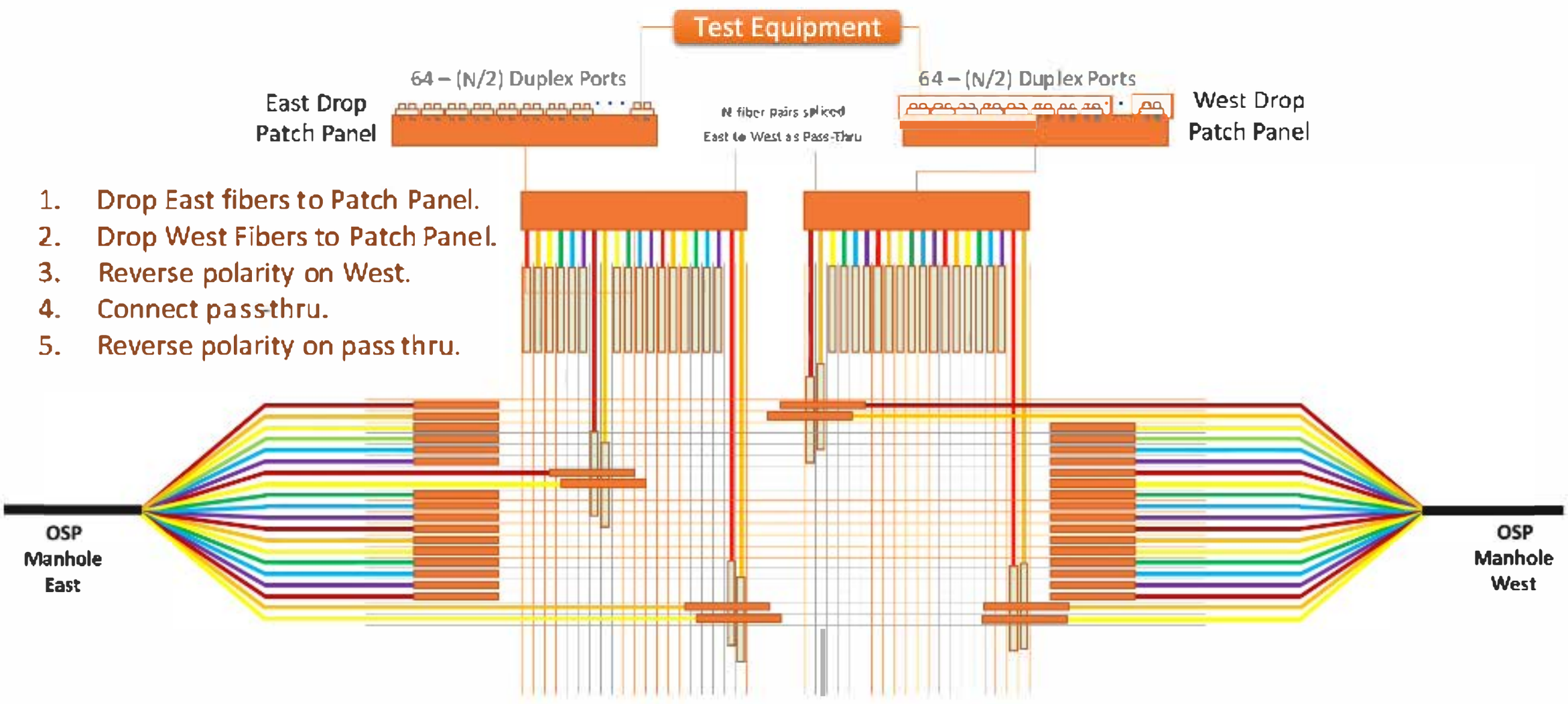
Fiber Smart NETWORKS

Dark Fiber Use Case 3

Making Fibers Intelligent Network Assets

Today fiber networks are built by manually splicing fibers along the route. If there is a requirement to add or drop traffic at a particular site along the route, an engineer has to cut the fibers and connect them to a patch panel to allow local connections to be made. Every time a change is needed, it necessitates a physical visit to each site with an engineer to make the change. This then needs to be followed up with line testing to ensure any new splices are within tolerance and that the correct fibers have been changed and the fiber route is baselined for performance. The whole process is manually intensive, slow, requires a lot of test equipment to be deployed into the field and the time to service is often measured in weeks rather than days.



Adding physical layer **AUTOMATION** at the drop site enables a much more reactive and versatile node, fibers can be dropped to individual ports as required or patched through the location and changes from one configuration to another can be achieved in a few seconds. With addition of test equipment at key sites, new configurations can be quickly tested and baselined without needing site visits and, as an additional benefit, polarity reversals can quickly and remotely be performed in the event that there is a polarity clash on a specific route. These reversals can be implemented on dropped or pass through connections.