Design Concern	Uniform Mode	Short Pipe	Pipe
Suitable for Customer Managed MPLS VPN	Yes,the changes in the core of the network is reflected to the IP DSCP or Presedence	No,Customer won't have control of EXP to DSCP mapping,DSCP doesn't change end to end	No,Customer won't have control of EXP to DSCP mapping,DSCP doesn't change end to end
Resource Requirement	Normal	Too much on the Eggress PE since Service Provider has to know all the Customers QoS architecture and configure the Egress PE accordingly	Normal
End to End Customer QoS setting	No,If EXP changes in the core it is copied to the DSCP at the Egress PE	Yes,Customer DSCP is preserved	Yes Customer DSCP is preserved
Special MPLS Label Requirement	No	No	Yes,Explict Null label (Label 0 for IPv4, Label 2 for IPv6) is sent by the Egress PE to the Penultimate Router
Requires QoS Remarking on the remote CE	Yes,since the DSCP information can change in the SP core,egress PE copies EXP bit to the DSCP at the Egress PE.Receiving CE needs to remark the DSCP	No,Customer QoS marking is preserved. If it comes to Ingress PE as DSCP EF, it is sent by the Egress PE as EF as well	No,Customer QoS marking is preserved. If it comes to Ingress PE as DSCP EF, it is sent by the Egress PE as EF as well
Alternative name	Unified MPLS QoS Tunneling	Short Pipe MPLS QoS Tunneling	Long Pipe MPLS QoS Tunneling
Standard Implementation	Yes IETF Standard	Yes IETF Standard	Yes IETF Standard
Customer-Service Provider Interaction	For the initial DSCP to EXP mapping only	For the initial DSCP to EXP mapping and also SP has to know each and every customer's QoS requirement to arrange egress scheduling and dropping strategy on the Egress Pe	For the initial DSCP to EXP mapping only
E-LSP and L-LSP support	Yes	Yes	Yes