# OSPF TE Topology-Transparent Zone

draft-chen-ospf-te-ttz-00

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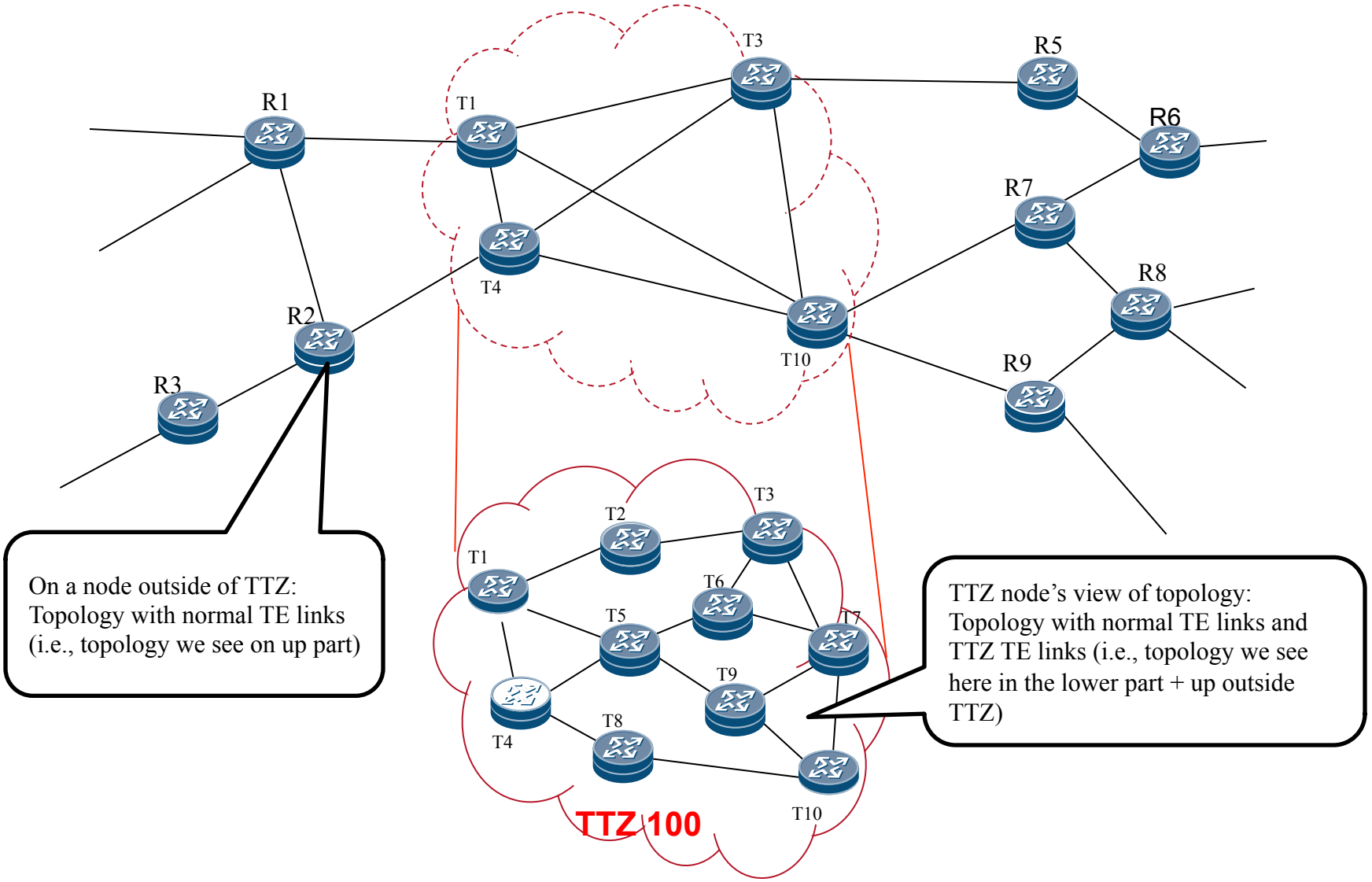
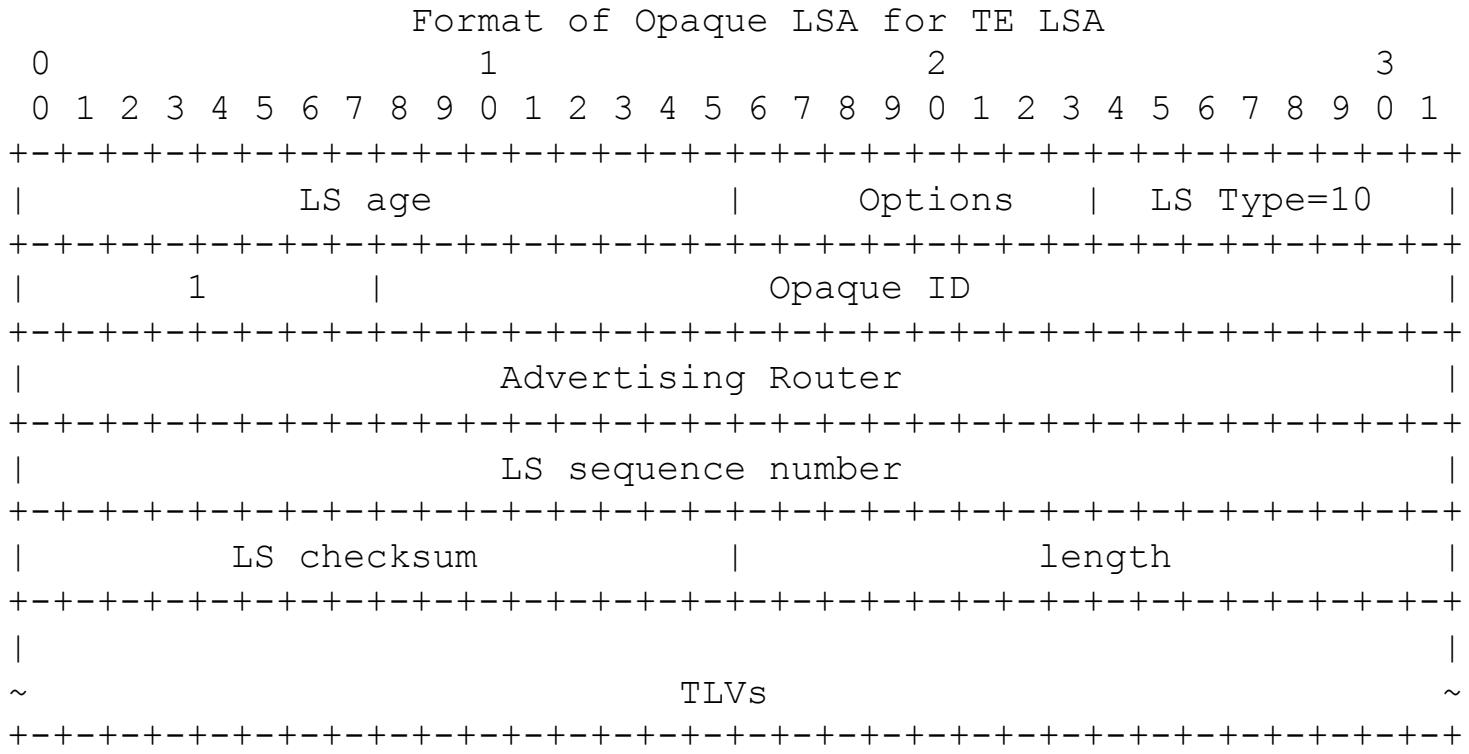
# Contents

# Introduction to OSPF-TE TTZ

**(virtual) between two edges with maximum bandwidth of path between them**



# Add TTZ ID TLV into Existing TE LSA



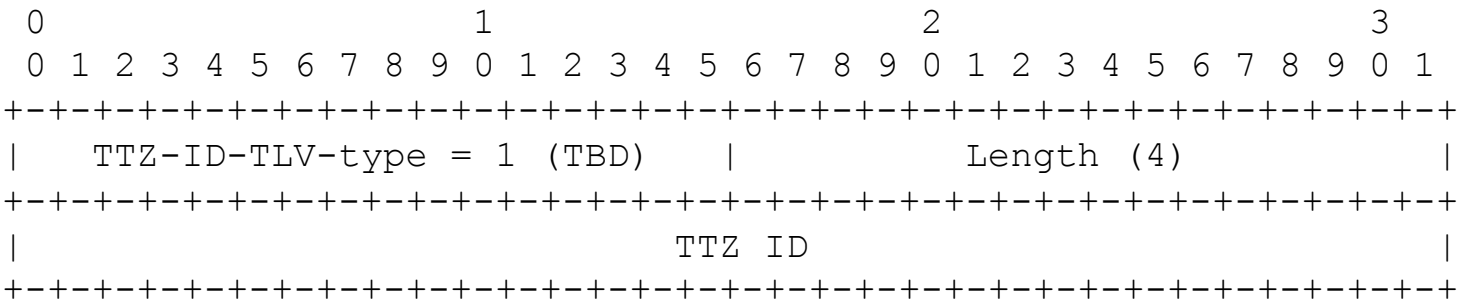

TLVs:

- Router Address TLV (Existing)
- Link TLV (Existing)
- TTZ ID TLV (Added)
- TTZ Options TLV (Added into TE LSA for virtualinzing TTZ)

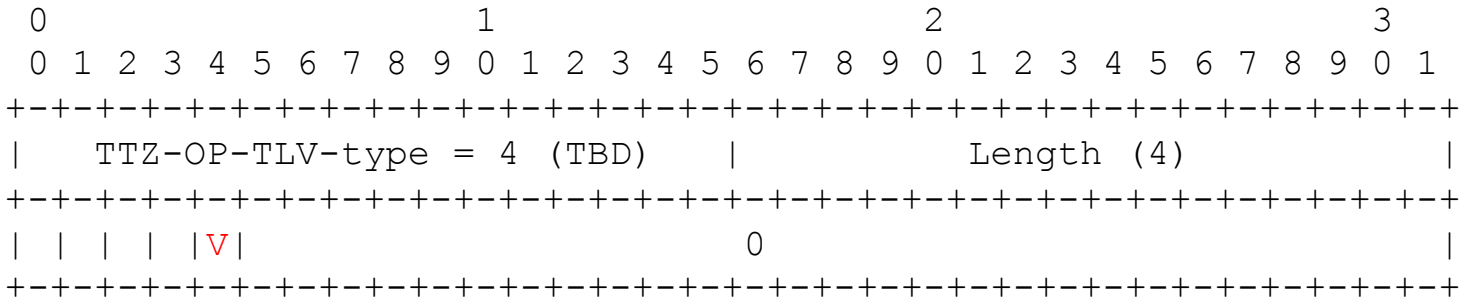
This is simple, but it is hard to flush out LSAs for TTZ.

# TTZ TLVs

TTZ ID TLV



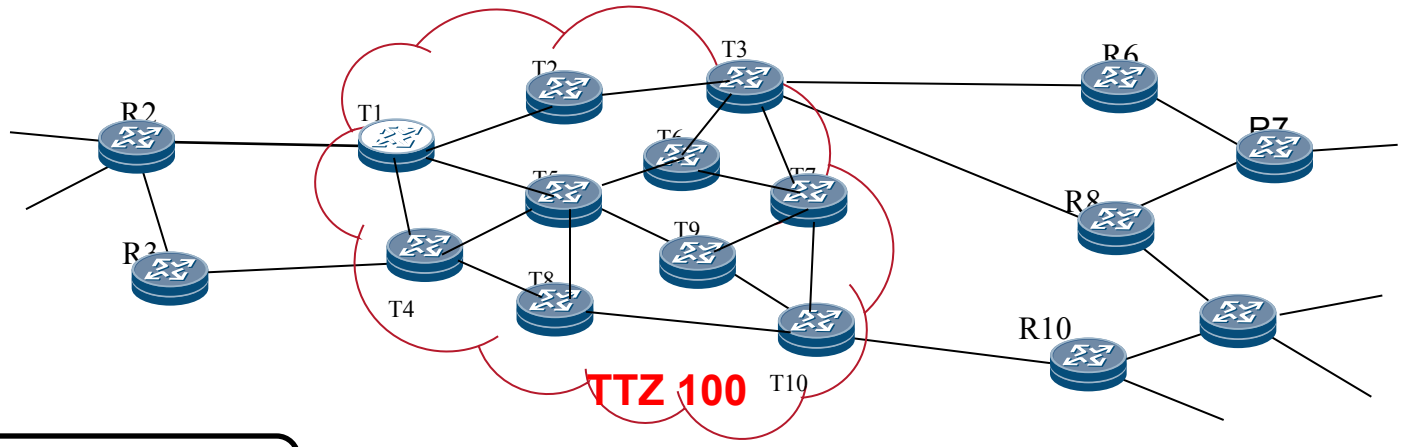

TTZ OP TLV




V = 1: P2P link between two edges of TTZ for virtualizing TTZ

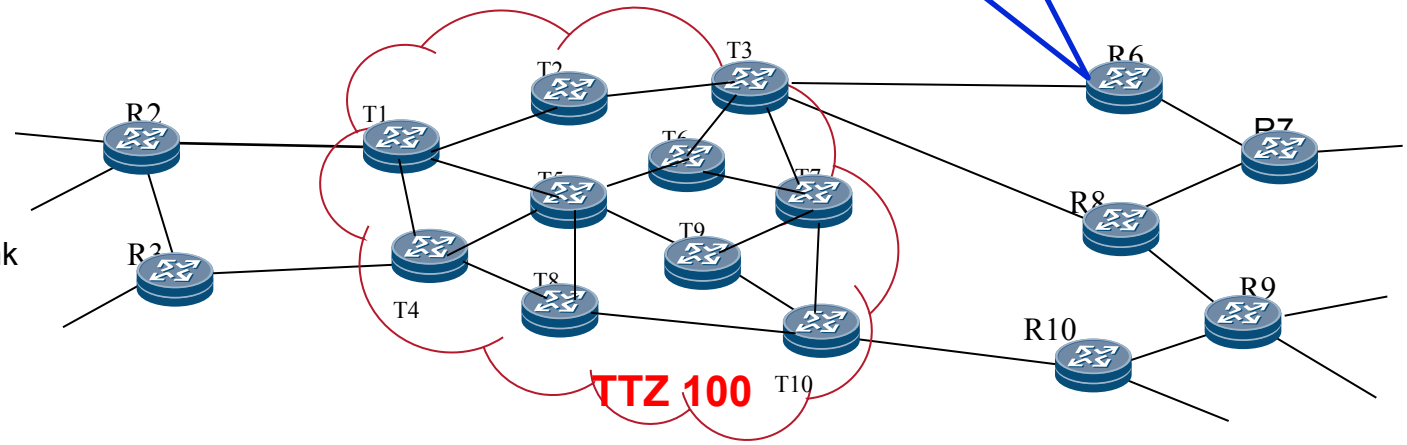
TTZ OP TLV with V=1 added into TE LSAs for virtualizing TTZ, explicit indication

# Migration to TTZ (1/2)




1. Distribute TTZ Information: TTZ ID TLV added into TE LSAs for links in TTZ

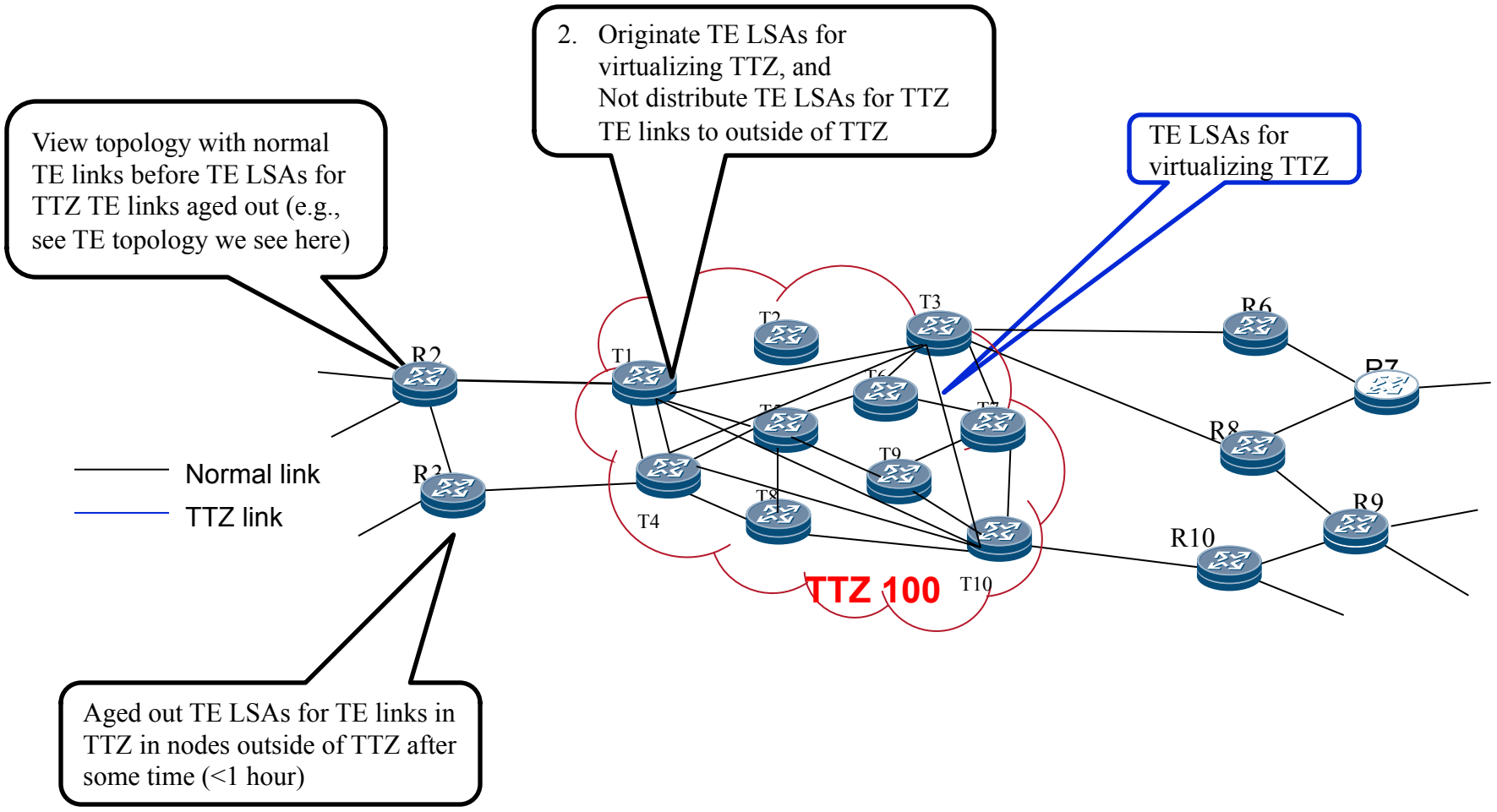
A node outside TTZ ignores TTZ ID TLV



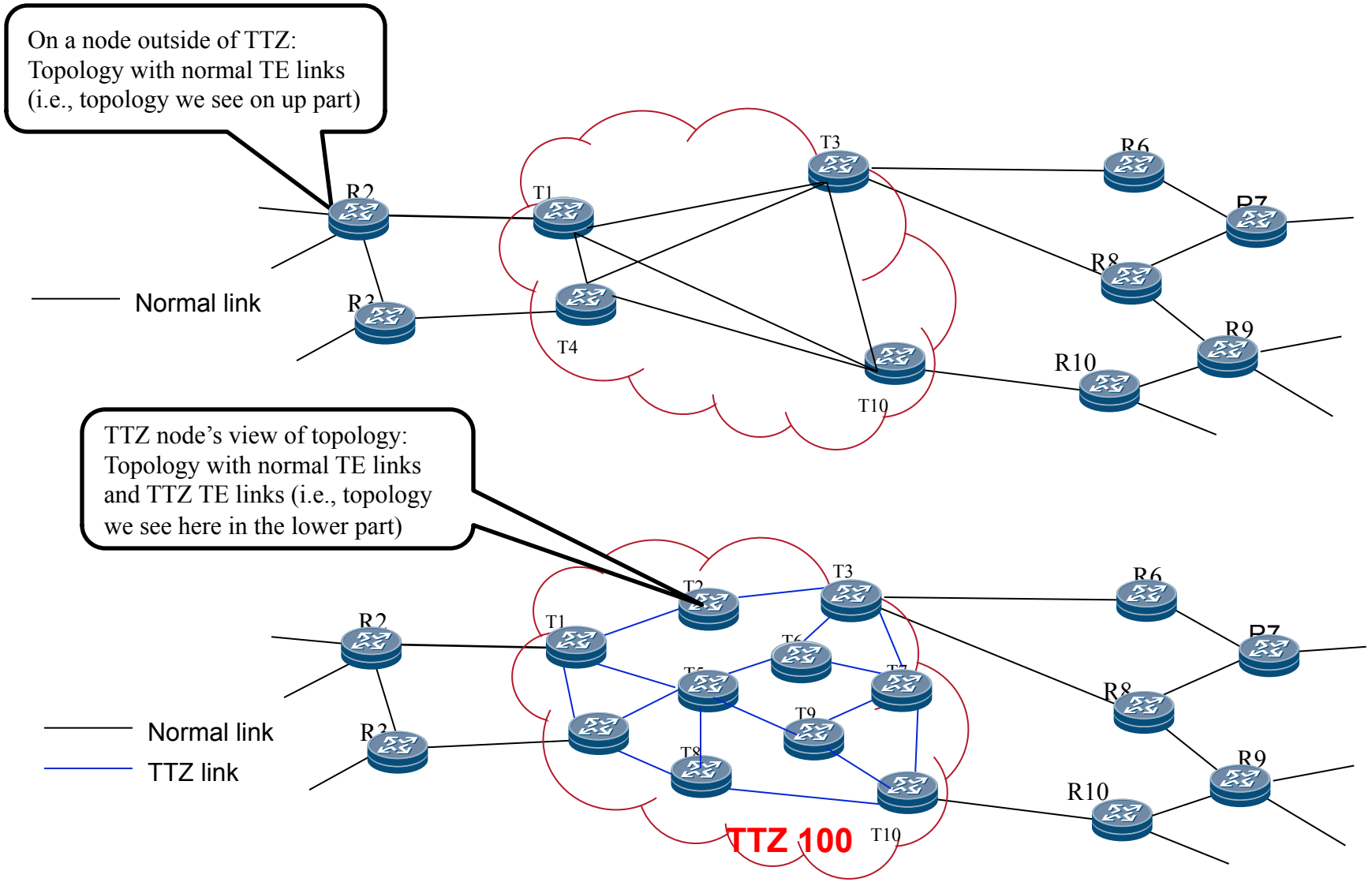

Normal link

TTZ link

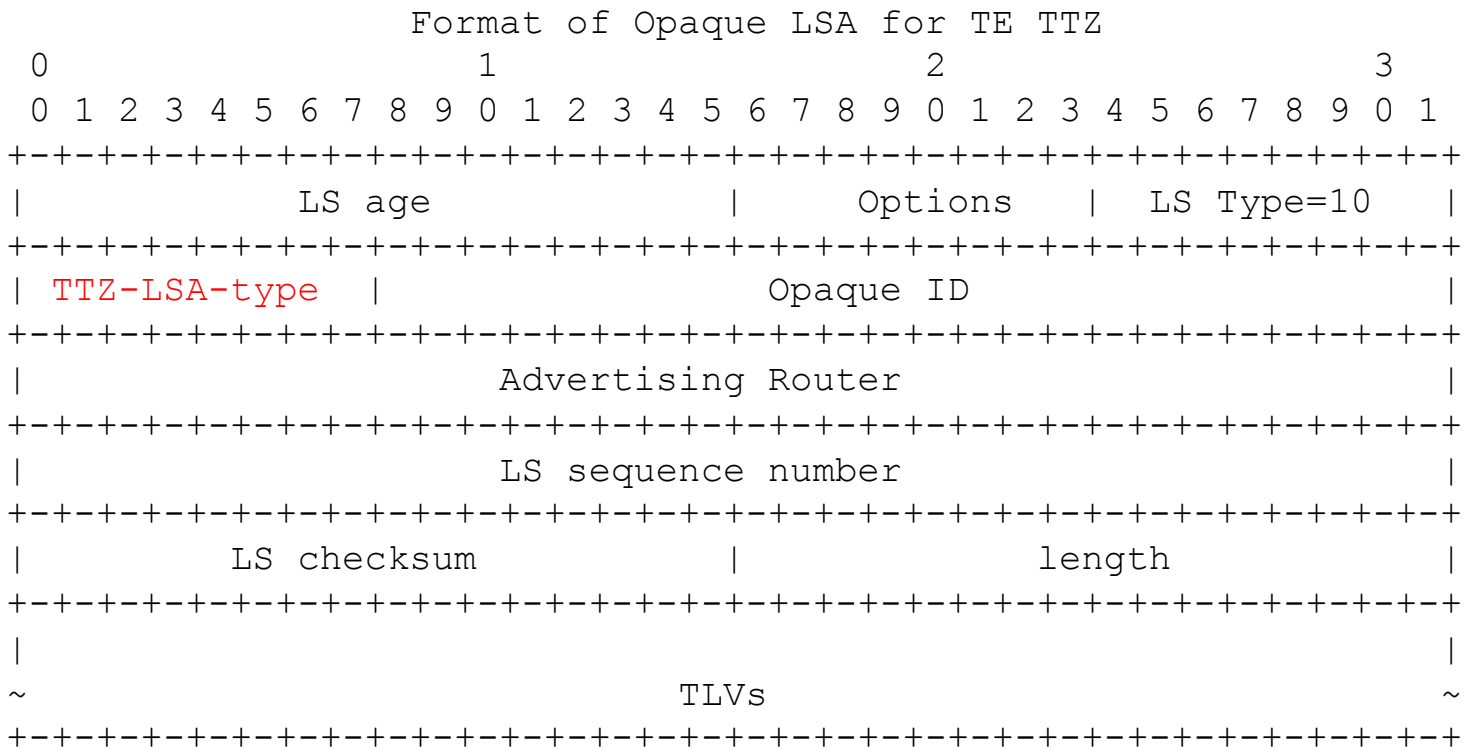
# Migration to TTZ (2/2)



# After Migration to TTZ for ~1- hour



# Put Contents of TE LSA into another LSA

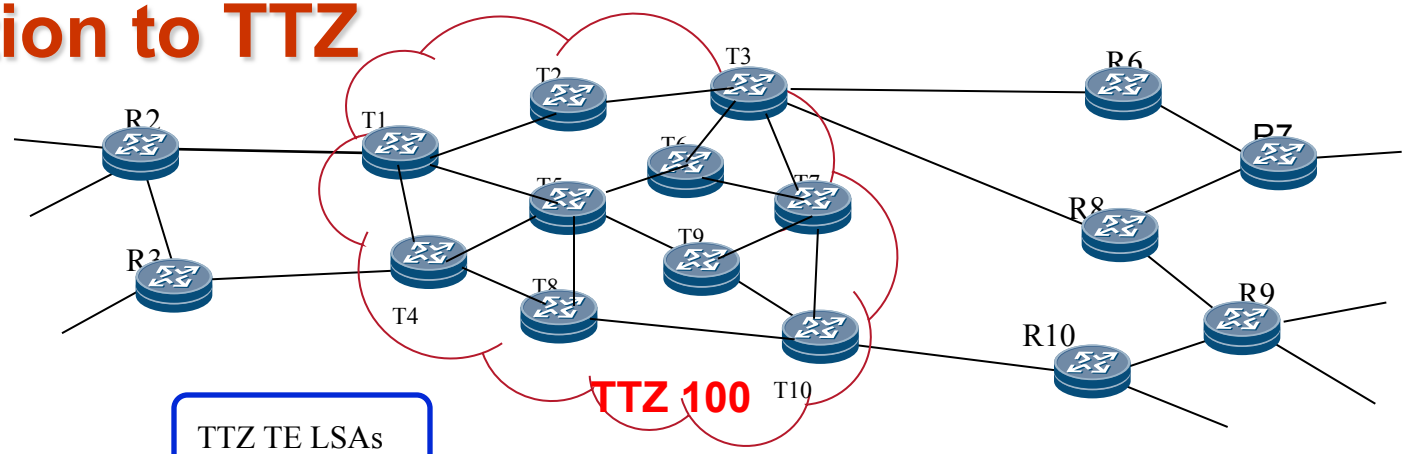



TTZ-LSA-type:
TTZ-TE-LSA-type (15?, TBD) for TTZ TE LSA

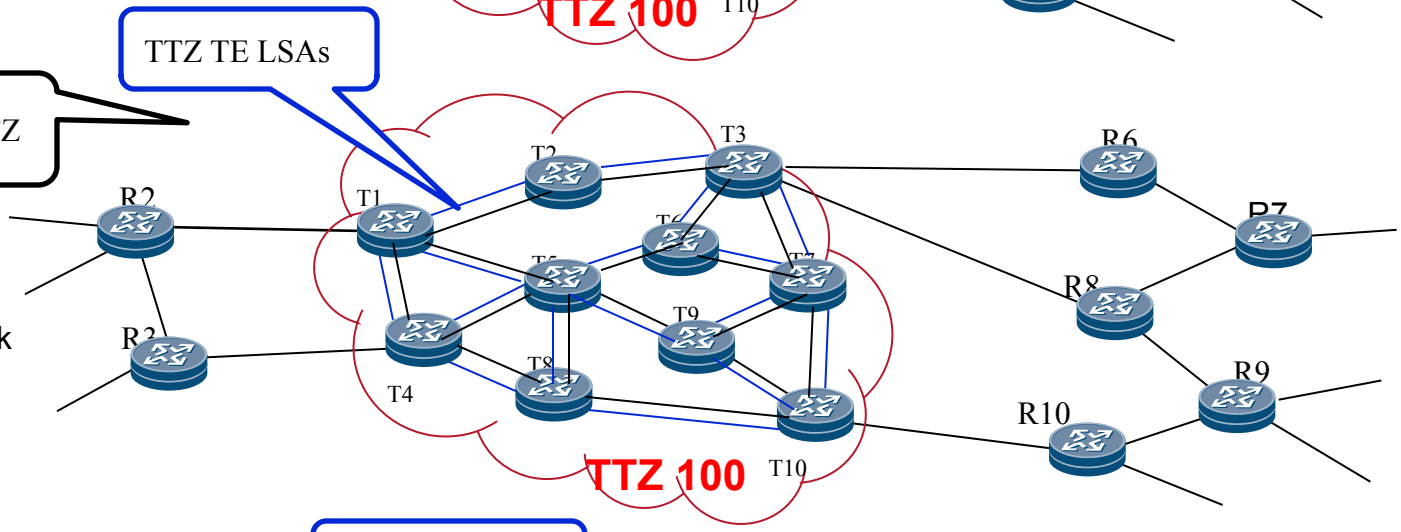
LSAs for normal TE LSAs of TTZ can be flushed out easily and quickly after migration to TTZ.

TLVs:
Router Address TLV (from TE LSA)
Link TLV (from TE LSA)
TTZ ID TLV
(TTZ Options TLV added into TE LSA
for virtualinzing TTZ, explicit indication)

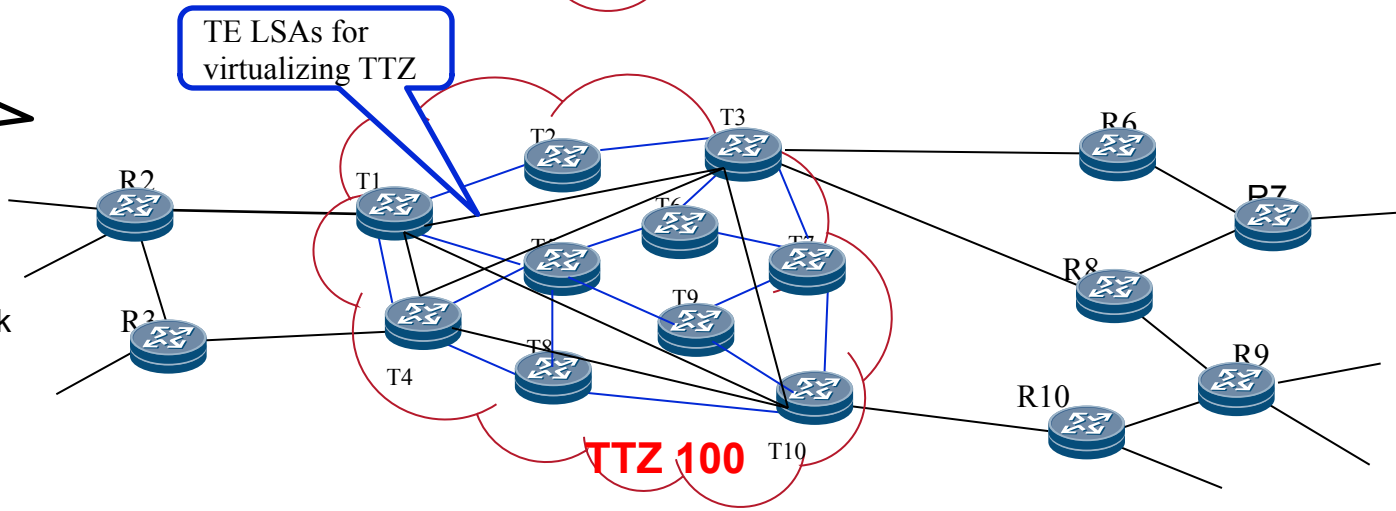
# Migration to TTZ



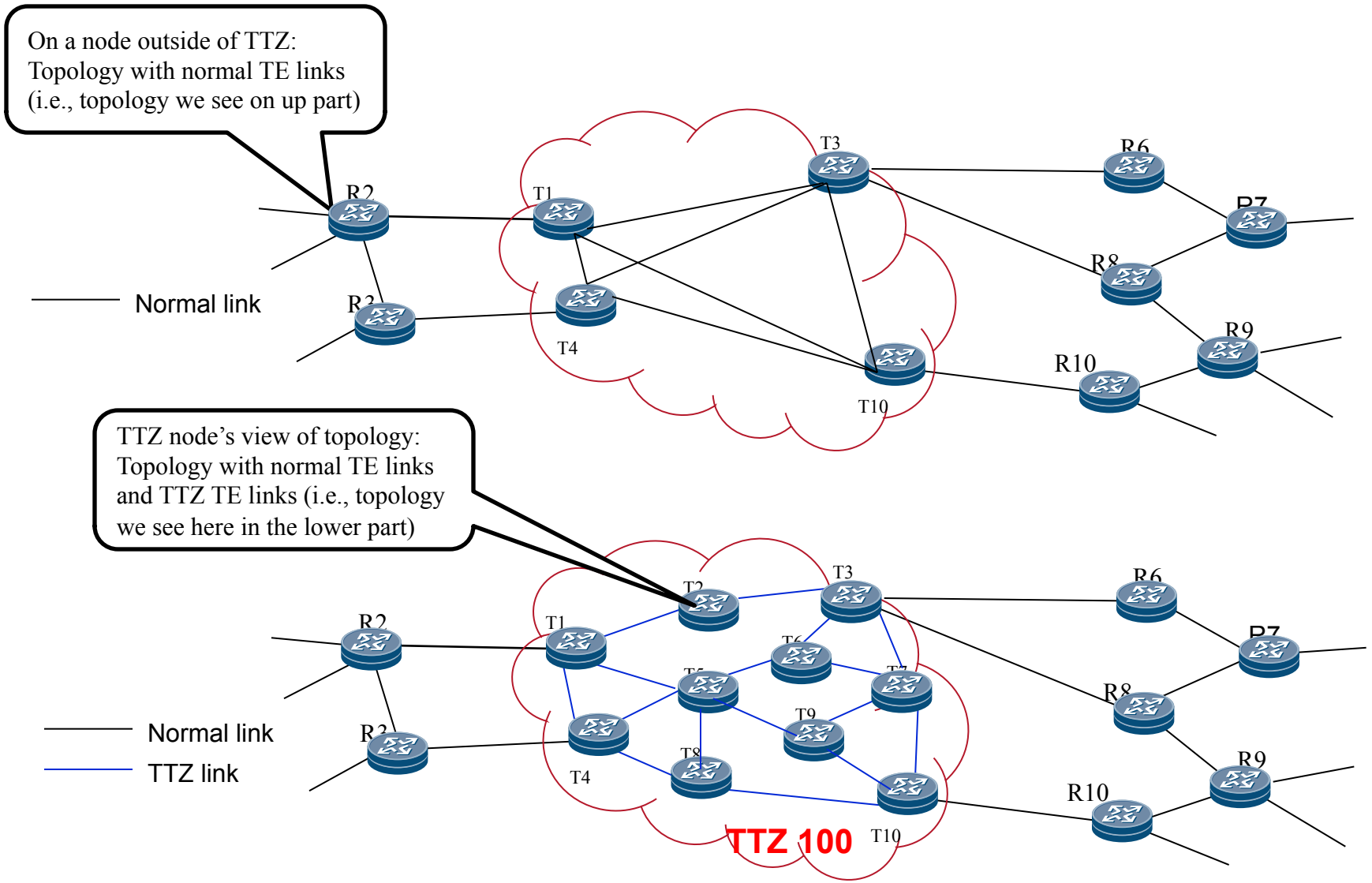

1. TTZ TE links distributed by TTZ TE LSA




2. Originate TE LSAs for virtualizing TTZ
Flushed out TE LSAs for links in TTZ soon

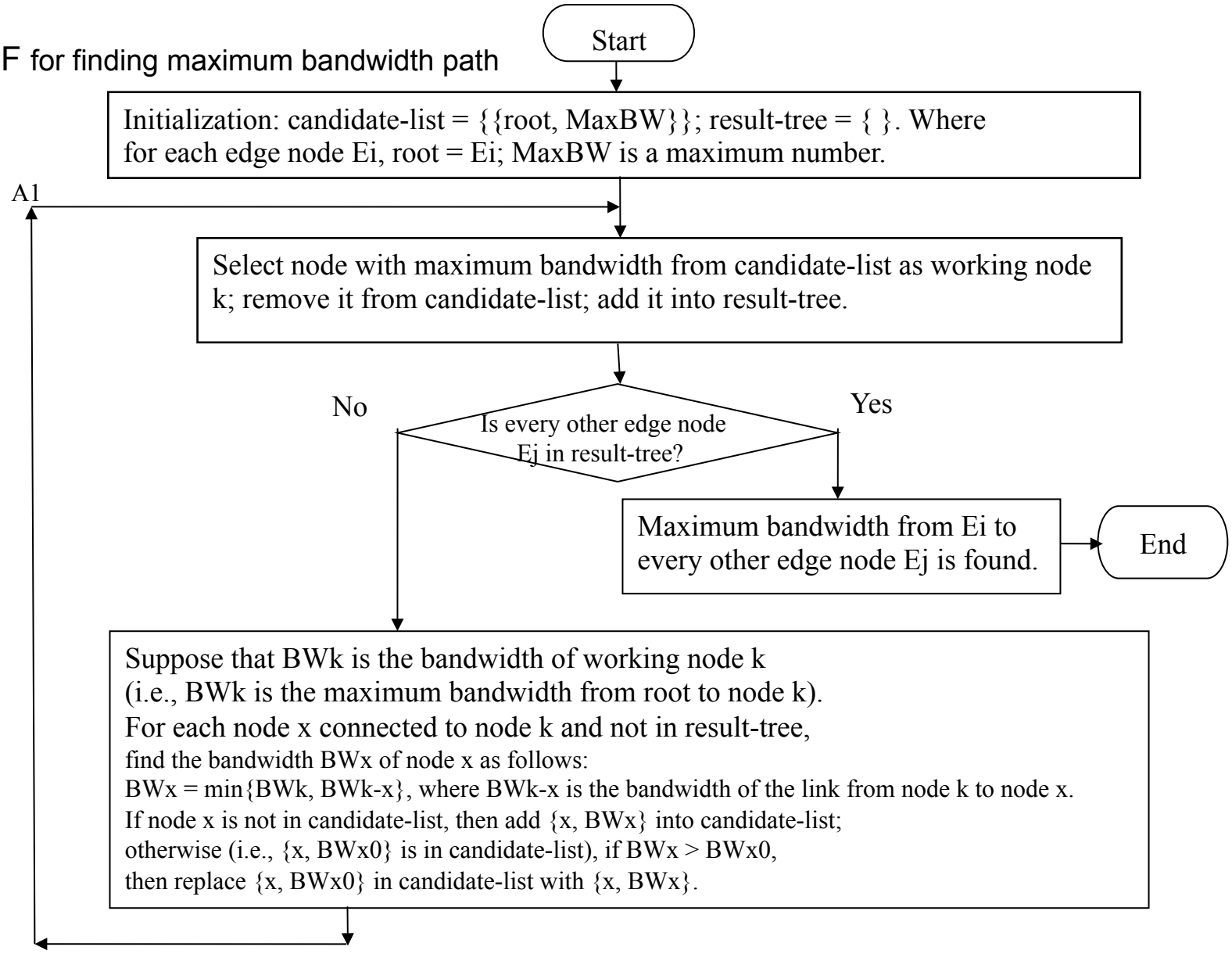


# After Migration to TTZ



# Summarize TE for TTZ

SPF for finding maximum bandwidth path



# Next Step

Welcome comments