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CENTRAL REPAIR
EASY RECONFIGURATION

PASSIVE
COMMON
COMPONENTS

SIMPLE
TRANSMISSION
SYSTEM

LOW
FIXED
COST

CENTRAL REPAIR
EASY RECONFIGURATION

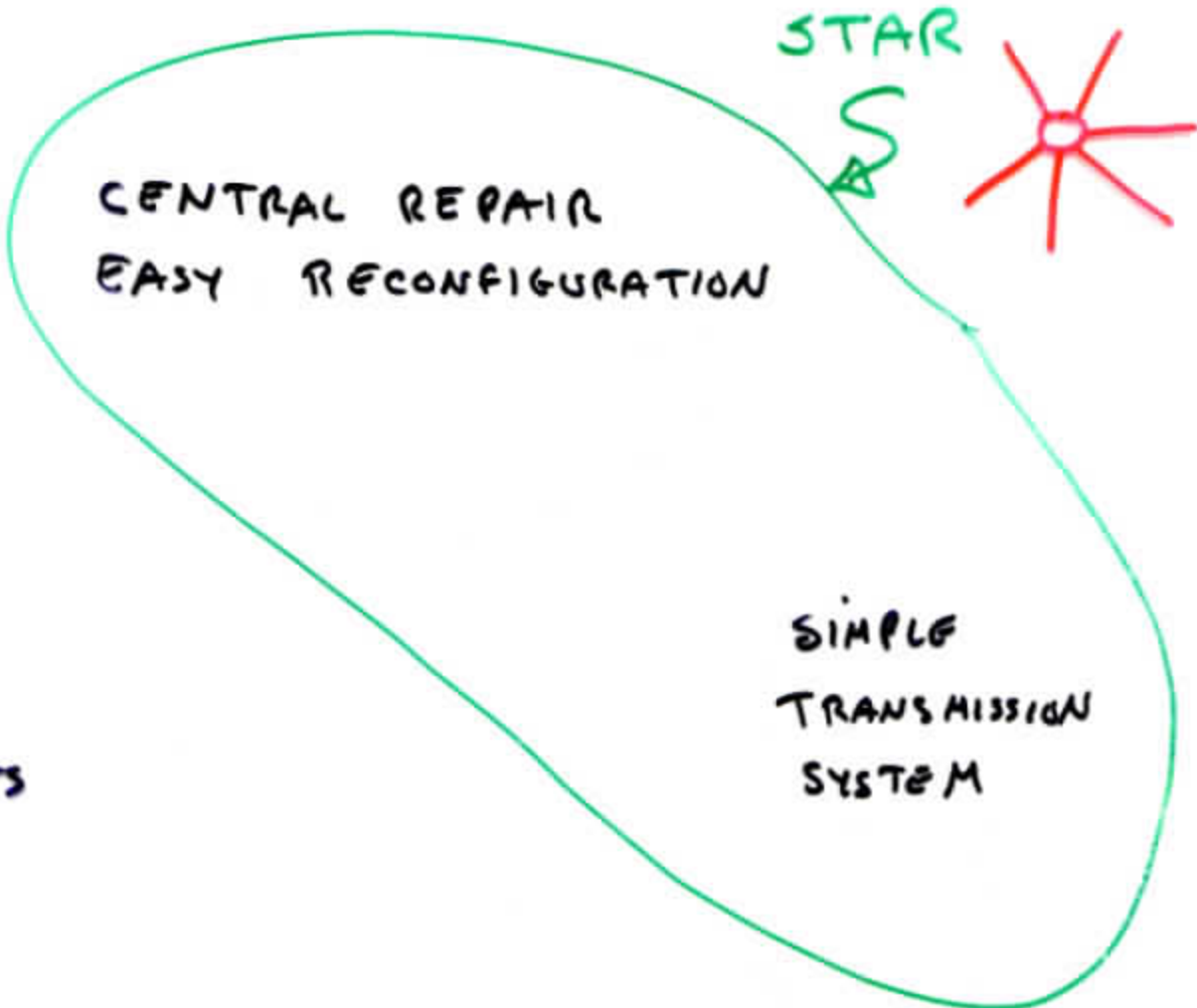
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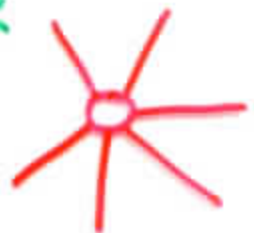
ETHERNET ↗





CENTRAL REPAIR
EASY RECONFIGURATION

STAR



SIMPLE
TRANSMISSION
SYSTEM

PASSIVE
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COMPONENTS

LOW
FIXED
COST

CENTRAL REPAIR
EASY RECONFIGURATION

PASSIVE
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COMPONENTS

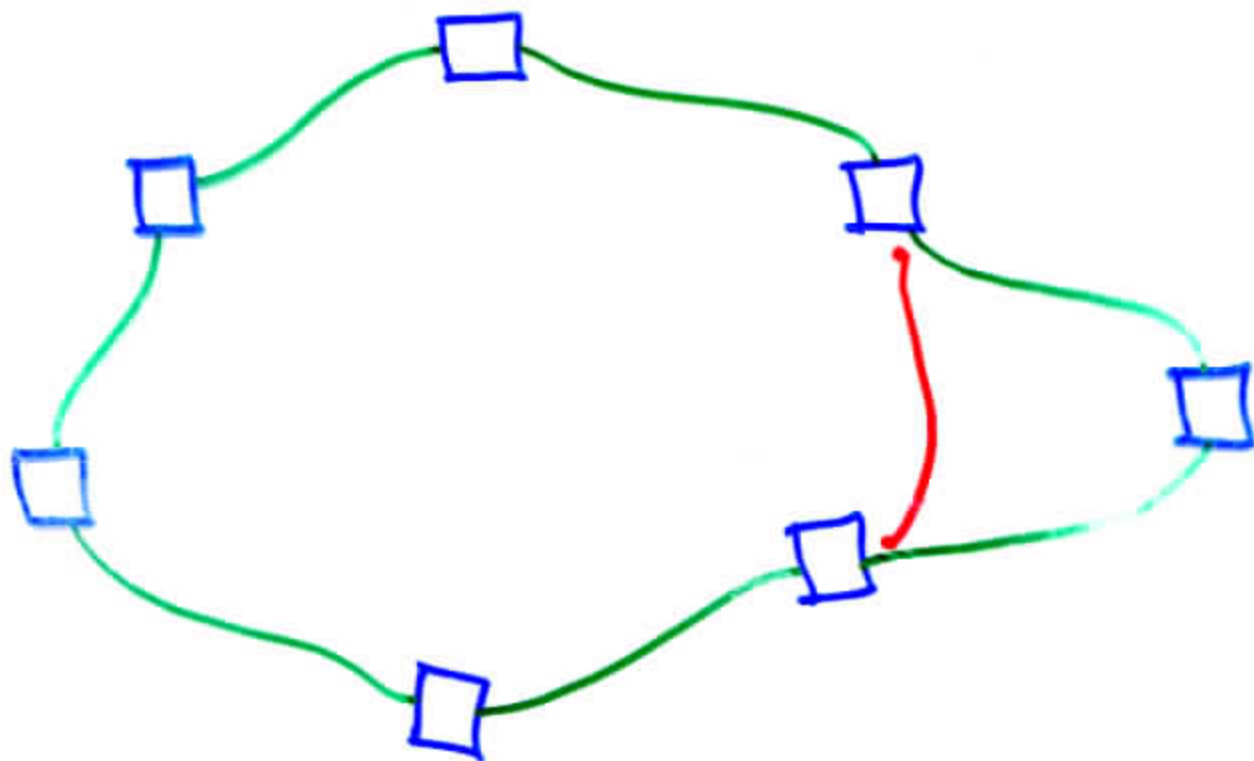
SIMPLE
TRANSMISSION
SYSTEM

LOW
FIXED
COST

RING



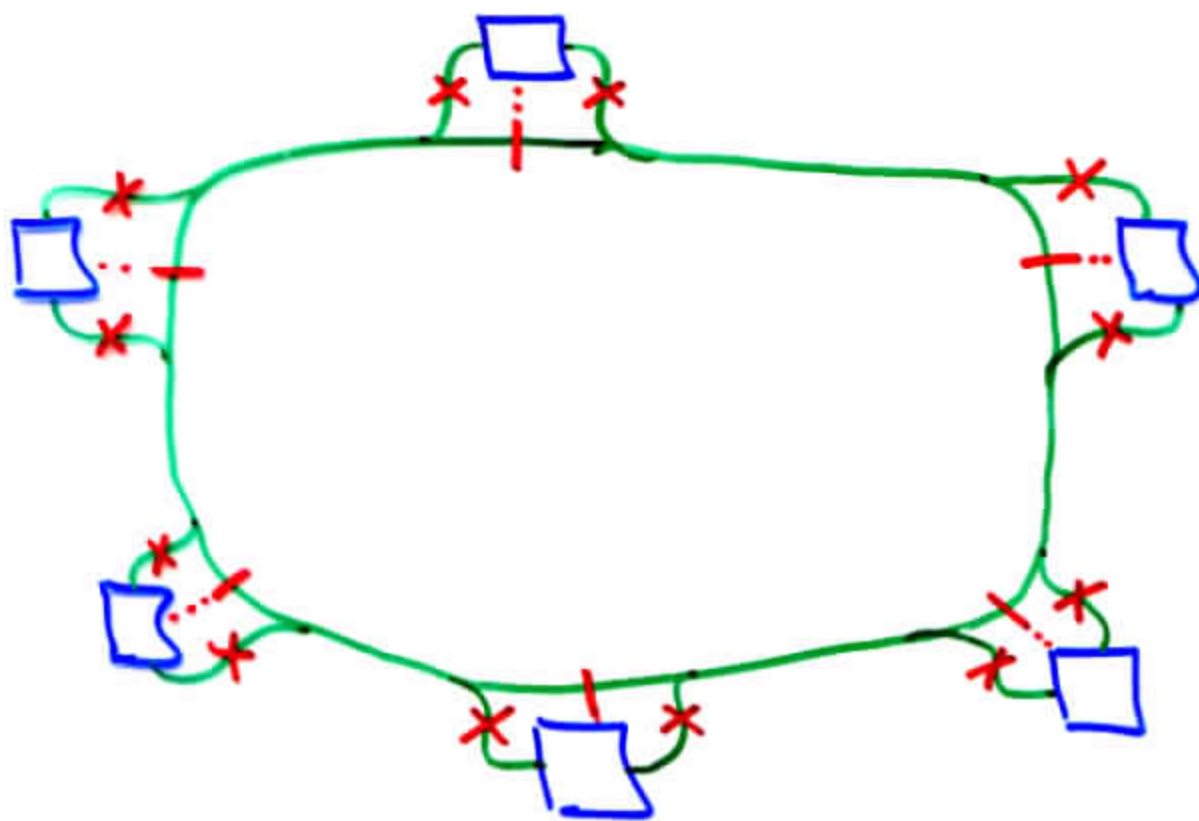
RING OF REPEATERS



Expected Problems:

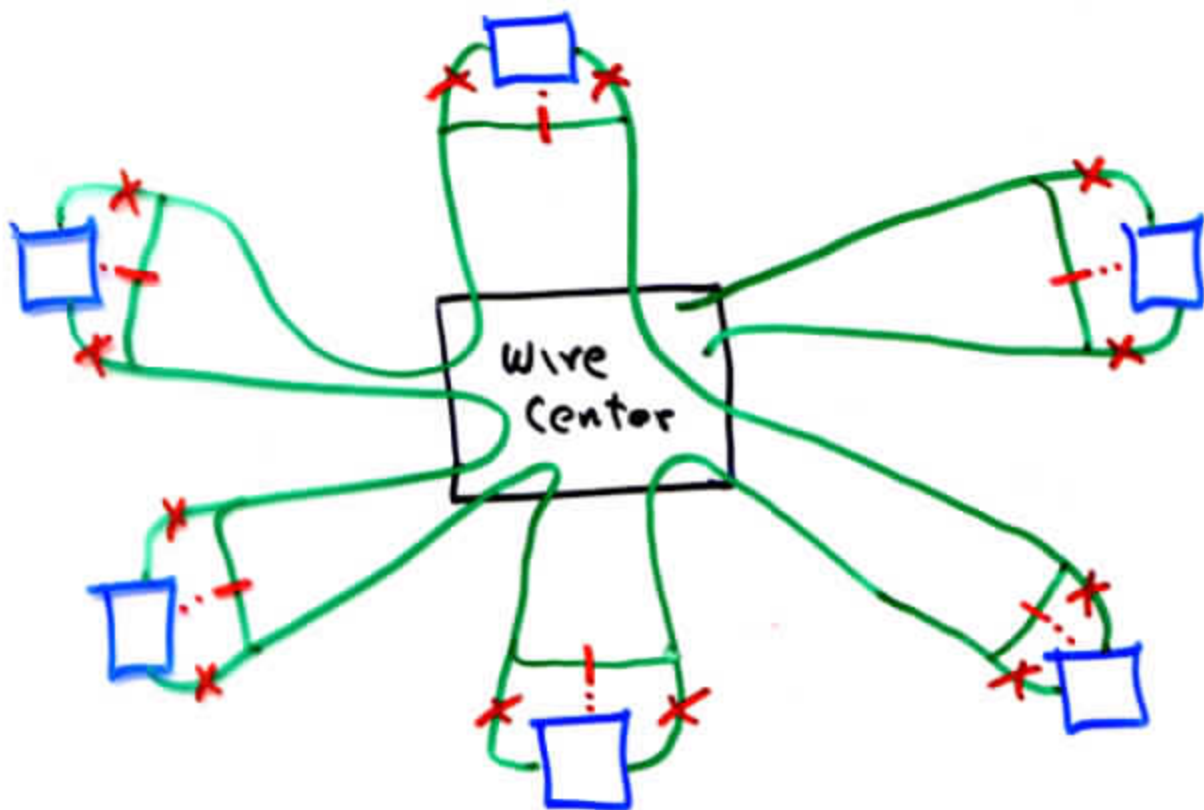
- **RELIABILITY** (repeaters must all work)
- **RECONFIGURATION** (abandoned wire, record-keeping effort)
- **REPAIR** (requires good records, perambulation)

RING WITH BYPASS RELAYS



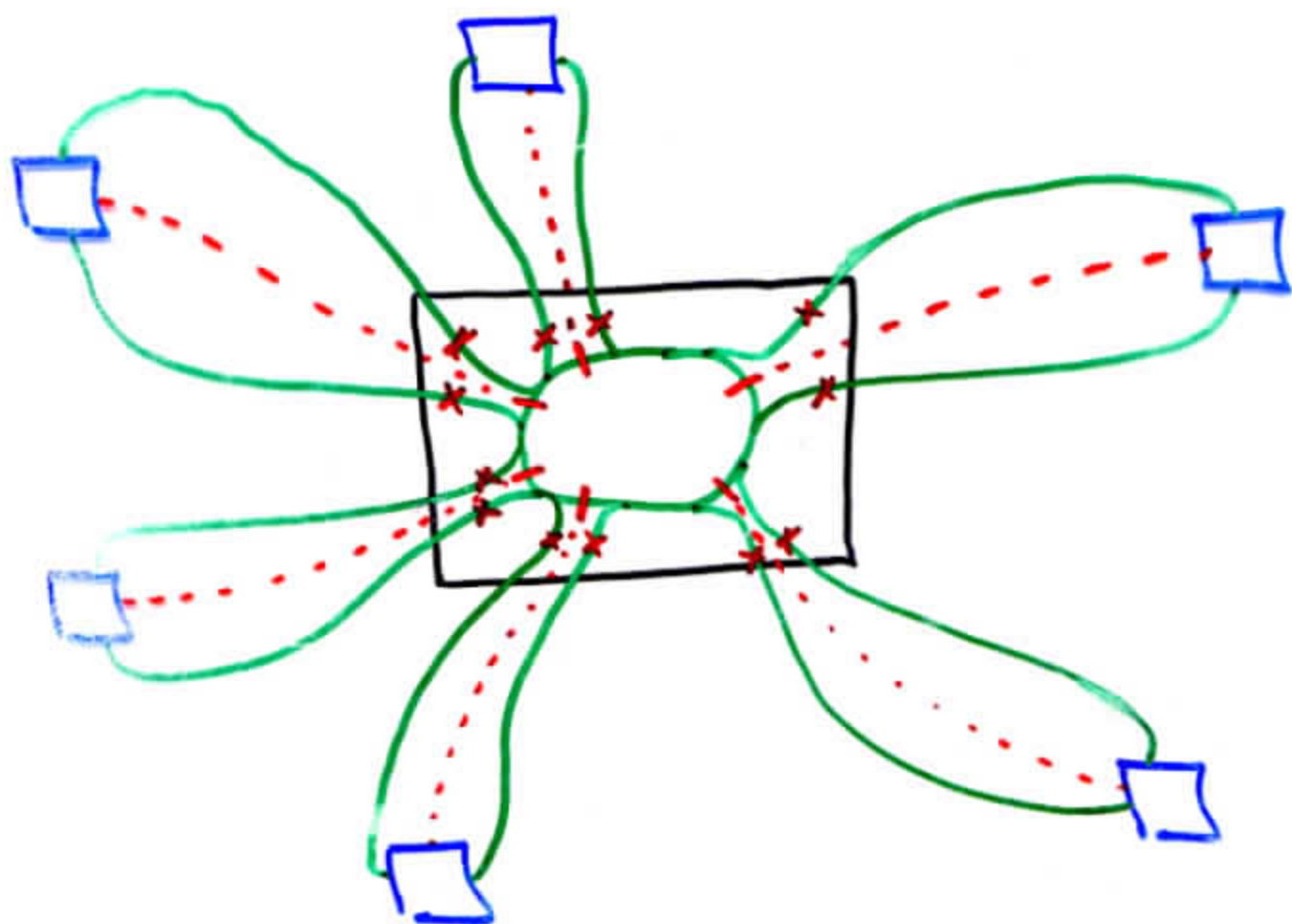
- + Helps reliability problem
- Introduces line length variations
(receiver complexity goes up)
- Repair still involves perambulation
- Reconfiguration is still a problem

STAR-SHAPED RING (STEP ONE)



- + centralized repair - No perambulation
(bypass misbehaving radials)
- + reconfiguration handled at wire center

STAR-SHAPED RING (STEP TWO)



- + Relays bypass repeater and cable run
- + Smaller line length variations
- + Opportunity for automatic maintenance

CONCLUSION

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EASY RECONFIGURATION

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STAR-
SHAPED
RING



REALIZATION

