A STAR-SHAPED RING

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CENTRAL REPAIR
EASY RECONFIGURATION

PASSIVE
COMMON
COMPONENTS

SIMPLE
TRANSMISSION
SYSTEM

LOW
FIXED
COST
CENTRAL REPAIR
EASY RECONFIGURATION

PASSIVE COMMON COMPONENTS

SIMPLE TRANSMISSION SYSTEM

LOW FIXED COST

ETHERNET

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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 repeaters and cable run
+ Smaller line length variations
+ Opportunity for automatic maintenance
CONCLUSION

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