

Advanced Computer Networking (ACN)

Router Project – Problem 3 Solution

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Sorting

- **Longest** Prefix Matching
 - Most specific routes supersede less specific routes
 - Sort input according to prefix length (start with the shortest/least specific route)
 - Start building the routing table after all routes are known

NULL-routes

- Routing table must be able to detect if no route exists
- NULL entries should be possible
- Some implementations supported NULL entries in `tb124` but not in `tb11ong`

Transfer between tables

- Existing table entries for `tb124` must be transferred to `tb11ong` if routes with a prefix length smaller than `/24` are added
- Prefill `tb11ong` with entries from `tb124`
- Insert into `tb11ong` after prefill