The almighty Berkeley Kingdom and the not-so-almighty Stanford Kingdom are connected in the following map. The hierarchy is as follows: Kingdoms dominate Fiefdoms, and Fiefdoms dominate Serfdoms.

Assume standard selection and export policies:

Selection: Prefer subordinates to peers, peers to superiors
Export: 1. To subordinates, advertise all paths
2. To everyone else, advertise only paths to subordinates

a) Panda, a Berkeley serf in B4 wants to talk to another serf, Justine, in B5. What path does he take, if any?

B4 → B2 → B3 → B5

b) Andrew, another Berkeley serf in B6 also wants to talk Justine (B5). What path does he take, if any?

B6 → B1 → S1 → S2 → B5

c) Having heard so much about the serf in B5, Sylvia, ruler of the Berkeley Kingdom (B1), sends a messenger to summon him for a secret mission. What path does the messenger take, if any?

B1 → S1 → S2 → B5
d) Justine, now in B1 after receiving Sylvia’s orders, has been told to spy on the serfs in S3. What path does she take, if any?

\[
B1 \rightarrow S1 \rightarrow S2 \rightarrow S3
\]

Now suppose Justine finds out that the serfs in Stanfurd have been scheming a secret world domination plan by summoning evil walking trees. After learning about this, Sylvia declares war with the Stanfurd kingdom. Here are the new policies:

**Berkeley**

**Selection:** Prefer subordinates to peers, peers to superiors

**Export:**
1. To Berkeley subordinates, advertise all paths
2. To everyone else in Berkeley, advertise only paths to subordinates
3. NEVER advertise anything to Stanfurd

**Stanfurd**

**Selection:** Prefer subordinates to peers, peers to superiors

**Export:**
1. To Stanfurd subordinates, advertise all paths
2. To everyone else in Stanfurd, advertise only paths to subordinates
3. NEVER advertise anything to Berkeley

e) Gautam, another Berkeley serf in B6, wants to visit B5. What path does he take, if any?

**No path!**

f) The Stanfurd overlord in S1 decides to invade the serfdom B5. What path does his/her army take, if any?

\[
S1 \rightarrow S2 \rightarrow B5
\]

g) Having learned about the invasion, Sylvia also sends his army from B1 to protect B5. What path does her army take, if any?

**No path!**

h) On the map above, add any number of links such that all nodes, including the ones in Stanfurd, can reach the battleground B5. Remember to specify the hierarchical relationship between the two ends of the link(s).

**There are many possibilities:** Connect B4 (or B1, B2, B6) and B5, with the former being the superior (provider) and latter being the subordinate (customer)