We claim:

1. A non-transitory computer-readable storage medium including instructions that, when executed by a processor, cause the processor to perform the steps of:

selecting, from a listing of network prefixes, a plurality of network prefixes that are within a range of a subnet;

sorting the plurality of network prefixes based on routing information to generate one or more subgroups of network prefixes;

selecting a first subgroup of network prefixes included in the one or more subgroups of network prefixes;

determining that a similarity between routing information associated with the first subgroup of network prefixes exceeds a threshold level, wherein routing information associated with a first network prefix included in the first subgroup of network prefixes is different than routing information associated with a second network prefix included in the first subgroup of network prefixes; and in response to the determining, generating a synthetic supernet based on the first subgroup of network prefixes.

2. The non-transitory computer-readable storage medium of claim 1, wherein each subgroup of network prefixes included in the one or more subgroups of network prefixes is associated with a different set of routing information.

3. The non-transitory computer-readable storage medium of claim 2, wherein each different set of routing information comprises one or more next hops.

4. The non-transitory computer-readable storage medium of claim 1, wherein the synthetic supernet corresponds to a network prefix that is not included in the listing of network prefixes.

5. The non-transitory computer-readable storage medium of claim 1, wherein each network prefix included in the first subgroup of network prefixes is associated with a first set of routing information, and further comprising associating the synthetic supernet with the first set of routing information.

6. The non-transitory computer-readable storage medium of claim 5, further comprising writing the synthetic supernet to an entry of a forwarding table, and associating the entry with first set of routing information.

7. The non-transitory computer-readable storage medium of claim 6, further comprising removing the first subgroup of network prefixes from the forwarding table.

8. The non-transitory computer-readable storage medium of claim 6, further comprising determining that the first subgroup of network prefixes should not be written from a routing table to the forwarding table.

9. The non-transitory computer-readable storage medium of claim 1, wherein determining that the similarity exceeds the threshold level comprises comparing at least one of next hops (NHs) and autonomous system numbers (ASNs) associated with the first subgroup of network prefixes.

10. A non-transitory computer-readable storage medium including instructions that, when executed by a processor, cause the processor to perform the steps of:

selecting, from a listing of network prefixes, a plurality of network prefixes that are within a range of a subnet;

sorting the plurality of network prefixes based on routing information to generate one or more subgroups of network prefixes, wherein the plurality of network prefixes are sorted according to at least one of a geographic region associated with the network prefixes and a traffic policy associated with the network prefixes to generate the one or more subgroups of network prefixes;

selecting a first subgroup of network prefixes included in the one or more subgroups of network prefixes; and generating a synthetic supernet based on the first subgroup of network prefixes.

11. A method, comprising: selecting, from a listing of network prefixes, a plurality of network prefixes that are within a range of a subnet;

sorting the plurality of network prefixes to generate one or more subgroups of network prefixes; selecting a first subgroup of network prefixes included in the one or more subgroups of network prefixes; and determining that a similarity between routing information associated with the first subgroup of network prefixes exceeds a threshold level, wherein routing information associated with a first network prefix included in the first subgroup of network prefixes is different than routing information associated with a second network prefix included in the first subgroup of network prefixes; and in response to the determining, generating a synthetic supernet based on the first subgroup of network prefixes.

12. The method of claim 11, wherein each subgroup of network prefixes included in the

one or more subgroups of network prefixes is associated with a different set of routing information.

13. The method of claim 11, wherein the synthetic supernet corresponds to a network prefix that is not included in the listing of network prefixes.

14. The method of claim 11, wherein each network prefix included in the first subgroup of network prefixes is associated with a first set of next hops, and further comprising associating the synthetic supernet with the first set of next hops.

15. The method of claim 14, further comprising writing the synthetic supernet to an entry of a forwarding table, and associating the entry with first set of next hops.

16. The method of claim 11, further comprising at least one of removing the first subgroup of network prefixes from a forwarding table and determining that the first subgroup of network prefixes should not be written to the forwarding table.

17. The method of claim 16, further comprising writing a second subgroup of network prefixes included in the one or more subgroups of network prefixes to the forwarding table, wherein the second subgroup of network prefixes is associated with a different set of next hops than the synthetic supernet.

18. A method, comprising:

selecting, from a listing of network prefixes, a plurality of network prefixes that are within a range of a subnet;

sorting the plurality of network prefixes to generate one or more subgroups of network prefixes, wherein the first subgroup of network prefixes is selected based on the first subgroup of network prefixes having a highest count of network prefixes in the one or more subgroups of network prefixes;

selecting a first subgroup of network prefixes included in the one or more subgroups of network prefixes; and generating a synthetic supernet based on the first subgroup of network prefixes.

19. A method, comprising:

analyzing a listing of network prefixes to determine a median network prefix; determining a subnet based on the median network prefix;

selecting, from the listing of network prefixes, a plurality of network prefixes that are within a range of the subnet; sorting the plurality of network prefixes to generate one or more subgroups of network prefixes;

selecting a first subgroup of network prefixes included in the one or more subgroups of network prefixes; and generating a synthetic supernet based on the first subgroup of network prefixes.

20. A networking device, comprising:

a first memory storing a networking application;

a second memory storing a forwarding table; and

a processor coupled to the first memory and the second memory, wherein, when executed by the processor, the networking application configures the processor to:

select, from a listing of network prefixes, a plurality of network prefixes that are within a range of a subnet;

sort the plurality of network prefixes based on routing information associated with the plurality of network prefixes to generate a plurality of subgroups of network prefixes;

select a first subgroup of network prefixes included in the plurality of subgroups of network prefixes;

determine that a similarity between routing information associated with the first subgroup of network prefixes exceeds a threshold level, wherein routing information associated with a first network prefix included in the first subgroup of network prefixes is different than routing information associated with a second network prefix included in the first subgroup of network prefixes; and in response to the determining, generate a synthetic supernet based on the first subgroup of network prefixes; and

write the synthetic supernet to the forwarding table.

21. The networking device of claim 20, wherein the synthetic supernet corresponds to a network prefix that is not included in the listing of network prefixes, and the networking application further configures the processor to remove the first subgroup of network prefixes from the forwarding table or determine that the first subgroup of network prefixes should not be written to the forwarding table.