Before going to see the way to run the verification by compositional reasoning method

we will, first see the possible data plane topology for different size of SDN platform.

For one domain, 1,2,3,4, and 5, there are one, one, two, four and five possible data plane topology.

For two domain, [1,1], [2,1], [3,1] (referred as dist1 in the folder), [2,2](refered as dist2 in the folder), and [2,3] switch distribution in each domain has one, one, two, one, and two possible data plane topology as per the constraint of our SDN platform network distributions

For three domain case, of switch distribution [1,1,1], [1,1,2], and [1,1,3] there are one, one and two

possible data plane topology respectively.

In the following folder:

one\_domain\_CR\_test\_mobility\_safety\_only ,

two\_domain\_CR\_test\_mobility\_safety\_only,

three\_domain\_CR\_test\_mobility\_safety\_only, for the mobility cases with local controller solution and verification by Compositional method (split by two management plane + controller plane in controller side and rest in the data plane)

one\_domain\_CR\_test\_no\_mobility,

two\_domain\_CR\_test\_no\_mobility,

three\_domain\_CR\_test\_no\_mobility, for the no-mobility cases by Compositional method (split by two management plane + controller plane in controller side and rest in the data plane referred as CR method1 in the paper )

one\_domain\_CR\_three\_layer\_test\_no\_mobility,

two\_domain\_CR\_three\_layer\_test\_no\_mobility,

three\_domain\_CR\_three\_layer\_test\_no\_mobility, for the no-mobility cases by Compositional method (split by three management plane, controller plane, and data plane referred as CR method2 in the paper )

to run the code just type

the following command in the terminal

**time ./one\_of\_the\_CR\_script from each folder**

at the end of the program check the time and for individual spin code test, check the maximum memory used and also notice that all the test, the number of error is zero.