In this folder we have three promela codes,

To run the code, for the no mobility of devices cases,

do the following,

type the following command in the terminal

for one domain and one switch case,

**spin -a monolithic\_model\_no\_mobility\_one\_domain\_one\_switch.pml**

**gcc -DVECTORSZ=35000 -DCOLLAPSE -o pan pan.c**

**./pan**

for one domain and two switches case,

**s****pin -a monolithic\_model\_no\_mobility\_one\_domain\_two\_switch.pml**

**gcc -DVECTORSZ=35000 -DCOLLAPSE -o pan pan.c**

**./pan**

for the arbitary domains and arbitrary swiches case

edit first few lines of the following file

monolithic\_model\_no\_mobility\_arbitrary\_but\_edit.pml

for example 3 device, 2 domains, 5 ovs switch (first domain contains 2, second domain contains 3)

**#define no\_device 3** /\* total number of device in the model \*/

**#define no\_dom 2** /\* total number of domain i.e number of controller = majo = domain \*/

**#define tot\_OVS 5**/\* contains total number of OVS in the data plane topology\*/

**#define tot\_VSPACE 2**/\* defining the totoal number of vspaces available \*/

**int no\_OVS\_dom[no\_dom + 1] = {0, 2, 5};**

/\* store the number of OVS in each domains by cumulative fashion \*/

/\* contains total number of OVS in the data plane topology\*/

And further following line create the cluster of devices group,

int VSPACE\_no\_dev[tot\_VSPACE + 1] = {0, 2, 3}; (device 1 and 2 form a one cluster and device 3 form an another cluster)

if we want to create 5 devices, with first two devices form one cluster and second two devices form another cluster and last device form another cluster then edit the following line as follows,

**#define tot\_VSPACE 3**

**int VSPACE\_no\_dev[tot\_VSPACE + 1] = {0, 2, 4, 5};**

**Note:** If you have good computing machine then try above, in a normal desktop (like 16 GB RAM and i7 machine)

it is not adviced to run the above code, it consumes lot of memory and takes hours of computation and possible wont complete the verification validation

If you have the computing power, then type the following command as follows,

**spin -a edited.pml**

**gcc -DVECTORSZ=35000 -DCOLLAPSE -o pan pan.c**

**./pan**

**may be try with larger DVECTORSZ (like put may be 50000 )**