



SW1	SW2	SW3	SW4	SW5
850-816	818-820	832-858	834-842	836-862
Load1	Load2	Load3	Load4	Load5
824-828	820-822	858-834	844	840

PMU	802	816	830	858	860
V, A	806	818	854	864	836
3, 3	808	820	856	834	840
	810	822	852	842	862
	812	824	832	844	838
	814	826	888	846	
	850	828	890	848	

Topology	SW1	SW2	SW3	SW4	SW5	Load1	Load 2	Load 3	Load 4	Load 5
1	0	0	0	0	0	0	0	0	0	0
2	1	0	0	0	0	1	0	0	0	0
3	1	1	0	0	0	1	1	0	0	0
4	1	0	1	0	0	1	0	1	0	1
5	1	0	1	0	1	1	0	1	0	1
6	1	0	1	1	0	1	0	1	1	1
7	1	0	1	1	1	1	0	1	1	1
8	1	1	1	0	0	1	1	1	0	1
9	1	1	1	0	1	1	1	1	0	1
10	1	1	1	1	0	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1

SW	824-828	820-822	858-834	844	840
1-5	Load1	Load2	Load3	Load4	Load5
	Pa\Pp\Pn				
	6-8\9-11\12-14	15-17	18-26	27-35	36-44
	1-9	10-12	13-21	22-30	31-39

$[Load]_{11 \times 39}$ The

1 2 3 4.5 6.7\8.9 10.11

$$1 + 11 + 11^2 + 2 \times 11^3 + 4 \times 11^4 + 2 \times 11^5$$

$$40^2 + 2 \times 13^3 + 4 \times 6^4 + 2 \times 11^5$$

1600 2197*2 2401*4 3125*2 9 topologies: 21848

$$[SW]_{1 \times 5} [Load]_{1 \times 39}$$

$$[PMU]_{33 \times 12}$$

Remove “topology 5” because it too close to “topology 4”, and then 8 topologies left.

Topology	SW1	SW2	SW3	SW4	SW5	Number of Scenarios
1	1	1	0	0	0	1600
2	1	0	1	0	0	2197
3	1	0	1	1	0	2401
4	1	0	1	1	1	2401
5	1	1	1	0	0	2401
6	1	1	1	0	1	2401
7	1	1	1	1	0	3125
8	1	1	1	1	1	3125

Here are 8 picked topologies generating PMU data with the load changed from 95% ~ 105%.

