

State estimation of supervisor:

$$S_0: \{(0, 5), (0, 0)\}$$
 $S1:\{(0, 0)\}$
$$S2: \{(0, 1), (0, 2)\}$$

S3: $\{(1, 0), (1, 5)\}$

S4: $\{(1, 1), (1, 2)\}$

S5: $\{(1, 6), (1, 7), (1, 3), (1, 4), (1, 5), (2, 6), (2, 7), (2, 3), (2, 4), (2, 5), (3, 6), (3, 7), (3, 3), (3, 4), (3, 5), (4, 6), (4, 7), (4, 3), (4, 4), (4, 5), (5, 6), (5, 7), (5, 3), (5, 4), (5, 5), (6, 6), (6, 7), (6, 3), (6, 4), (6, 5), (7, 6), (7, 7), (7, 3), (7, 4), (7, 5), (8, 6), (8, 7), (8, 3), (8, 4), (8, 5), (9, 6), (9, 7), (9, 3), (9, 4), (9, 5), (10, 6), (10, 7), (10, 3), (10, 4), (10, 5), (11, 6), (11, 7), (11, 3), (11, 4), (11, 5), (12, 6), (12, 7), (12, 3), (12, 4), (12, 5), (13, 6), (13, 7), (13, 3), (13, 4), (13, 5), (14, 6), (14, 7), (14, 3), (14, 4), (14, 5), (15, 6), (15, 7), (15, 3), (15, 4), (15, 5), (16, 6), (16, 7), (16, 3), (16, 4), (16, 5), (17, 6), (17, 7), (17, 3), (17, 4), (17, 5), (18, 6), (18, 7), (18, 3), (18, 4), (18, 5), (19, 6), (19, 7), (19, 3), (19, 4), (19, 5), (20, 6), (20, 7), (20, 3), (20, 4), (20, 5), (21, 6), (21, 7), (21, 3), (21, 4), (21, 5), (22, 6), (22, 7), (22, 3), (22, 4), (22, 5), (23, 6), (23, 7), (23, 3), (23, 4), (23, 5), 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3), (111, 4), (111, 5), (112, 6), (112, 7), (112, 3), (112, 4), (112, 5), (113, 6), (113, 7), (113, 3), (113, 4), (113, 5), (114, 6), (114, 7), (114, 3), (114, 4), (114, 5), (115, 6), (115, 7), (115, 3), (115, 4), (115, 5), (116, 6), (116, 7), (116, 3), (116,$

S6: {(1, 6), (1, 7),

S7: $\{(1, 7), (1, 4)\}$

State estimation of attacker:

 $A0:\{0,1,2,5\}$ $A1:\{1,2,5\}$

A2:{3}

A3:{4,6,7}

A4:{5}

A5:{8}

