

Ideally 4 buffers cover all possible $P_i(s, a_i)$

$$< s^1, a_i^1, P_i^1(s^1, a_i^1) >, < s^2, a_i^1, P_i^1(s^2, a_i^1) >, < s^3, a_i^1, P_i^1(s^3, a_i^1) >$$

$$< s^1, a_i^1, P_i^2(s^1, a_i^1) >, < s^2, a_i^1, P_i^2(s^2, a_i^1) >, < s^3, a_i^1, P_i^2(s^3, a_i^1) >$$

$$< s^1, a_i^2, P_i^1(s^1, a_i^2) >, < s^2, a_i^2, P_i^1(s^2, a_i^2) >, < s^3, a_i^2, P_i^1(s^3, a_i^2) >$$

$$< s^1, a_i^2, P_i^2(s^1, a_i^2) >, < s^2, a_i^2, P_i^2(s^2, a_i^2) >, < s^3, a_i^2, P_i^2(s^3, a_i^2) >$$