

$$h^{(3)} = h^{(2)} \text{---} M^{(3)} \text{---} s_3$$

The diagram illustrates the relationship between the hidden state $h^{(3)}$ and the previous hidden state $h^{(2)}$ through the transition matrix $M^{(3)}$. The output of $M^{(3)}$ is the state s_3 .

$$q(s_3 | s_1, s_2) \propto h^{(3)\dagger} \text{---} \gamma^{(3)} \text{---} h^{(3)}$$

The diagram illustrates the relationship between the probability $q(s_3 | s_1, s_2)$ and the hidden states $h^{(3)}$ and $h^{(3)\dagger}$ through the transition matrix $\gamma^{(3)}$.