

$$Y_{t,(Q,P)} = \underbrace{\sum_{s=0}^{t-1} \exp(L_{t-1}^{end} - L_s^{end}) * \underbrace{\sum_{s=0}^{t-1} \exp(L_{t-1}^{end} - L_s^{end}) * \underbrace{B_s}_{(Q,N)} * \Delta t_s * \exp(L_s^{end} - L_s) * \underbrace{x_s}_{(Q,P)}}_{\text{Inter-Chunk (History)}} + \underbrace{\left(\left(\underbrace{C_t}_{(Q,N)} * \underbrace{B_t^\top}_{(N,Q)} \right) \odot \text{Mask} \right) * \underbrace{x_t}_{(Q,P)}}_{\text{Intra-Chunk (Current)}}$$

$$h_s^{local} = \left(\underbrace{B_s}_{(N,P)} \odot \underbrace{\Delta t_s}_{(Q,1)} \odot \exp(L_s^{end} - L_s) \right)^\top * \underbrace{x_s}_{(Q,P)}$$

