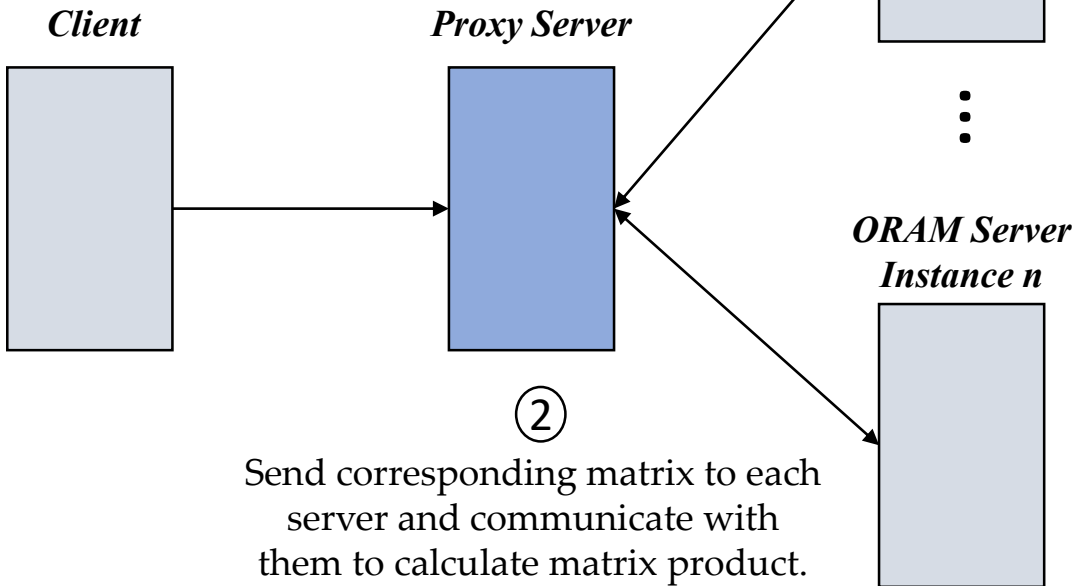


①

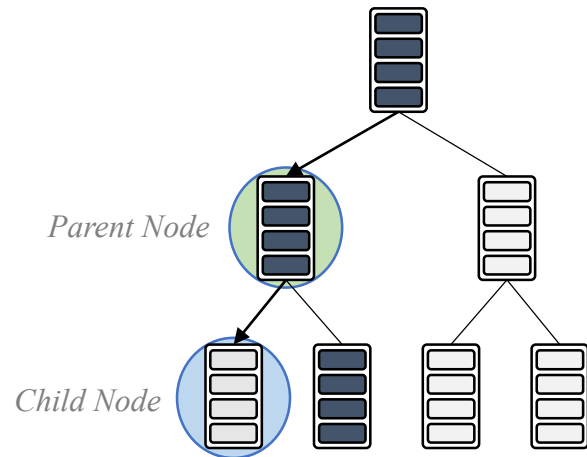
Client generates permutation matrix I for each server instance and send them to Proxy Server.



Send corresponding matrix to each server and communicate with them to calculate matrix product.

③

Each server does the matrix product of \vec{u} and permutation matrix.



$$\vec{u}^{1 \times 2Z} \cdot I^{2Z \times Z}$$

$$\vec{u} = \begin{array}{|c|c|c|c|c|c|c|c|c|c|} \hline x & & \dots & & & & b & \dots & & \\ \hline \end{array}$$

$$\vec{v} = \begin{array}{|c|c|c|c|c|} \hline x & b & \dots & & \\ \hline \end{array}$$