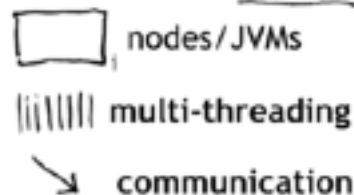
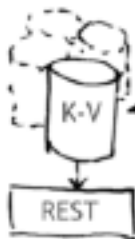




H2O Deep Learning Architecture

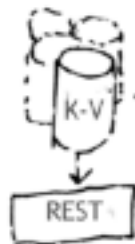
H2O's distributed
in-memory
key/value store



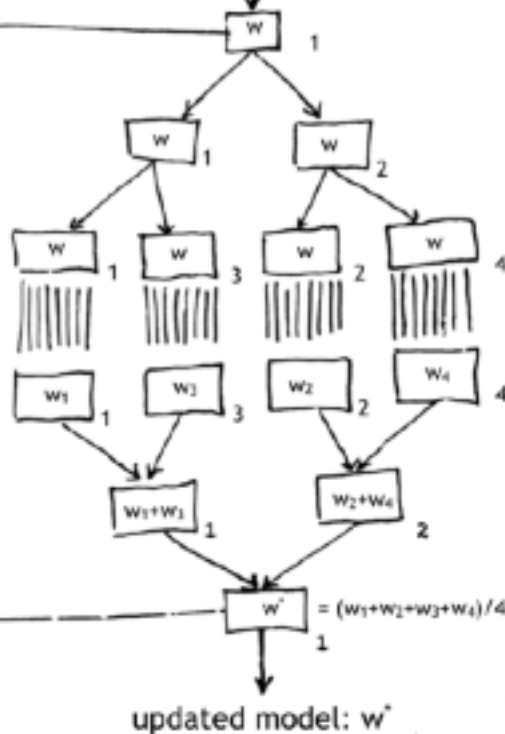
Clients connect via REST Server



H₂O FLOW



initial model: weights and biases



updated model: w^*



Map/Reduce Iterations

Map: training (fprop+bprop)
parallelized across all nodes
and all CPU cores

Reduce: model aggregation
for global convergence

Shown here: Model averaging
New: [Elastic averaging](#)

Communication frequency is auto-tuned
and user-controllable (affects
convergence)

Supervised Learning:

ENSEMBLES

H2O Deep Learning Architecture

