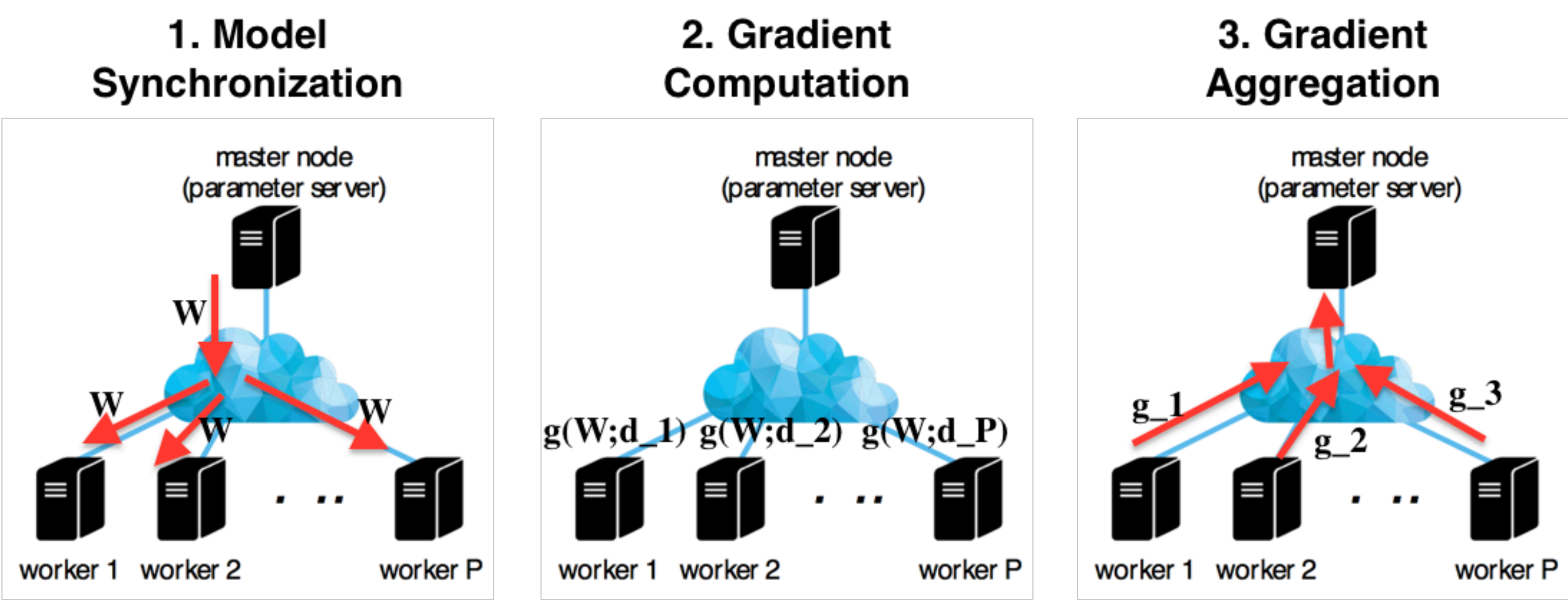


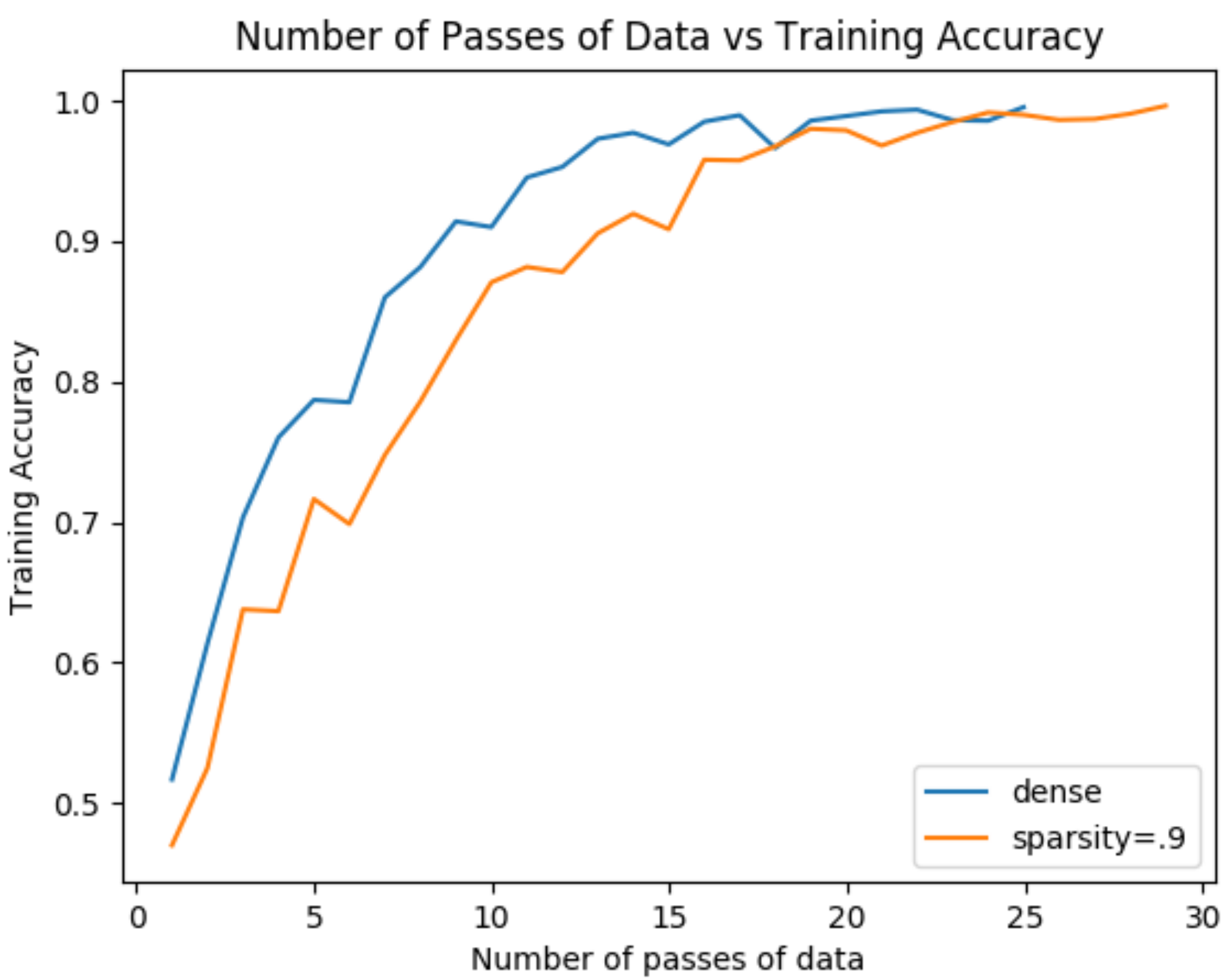
Speeding Up Distributed Machine Learning by Reducing the Network Load

Max Lam, Edward Look, Jesslyn Whittell

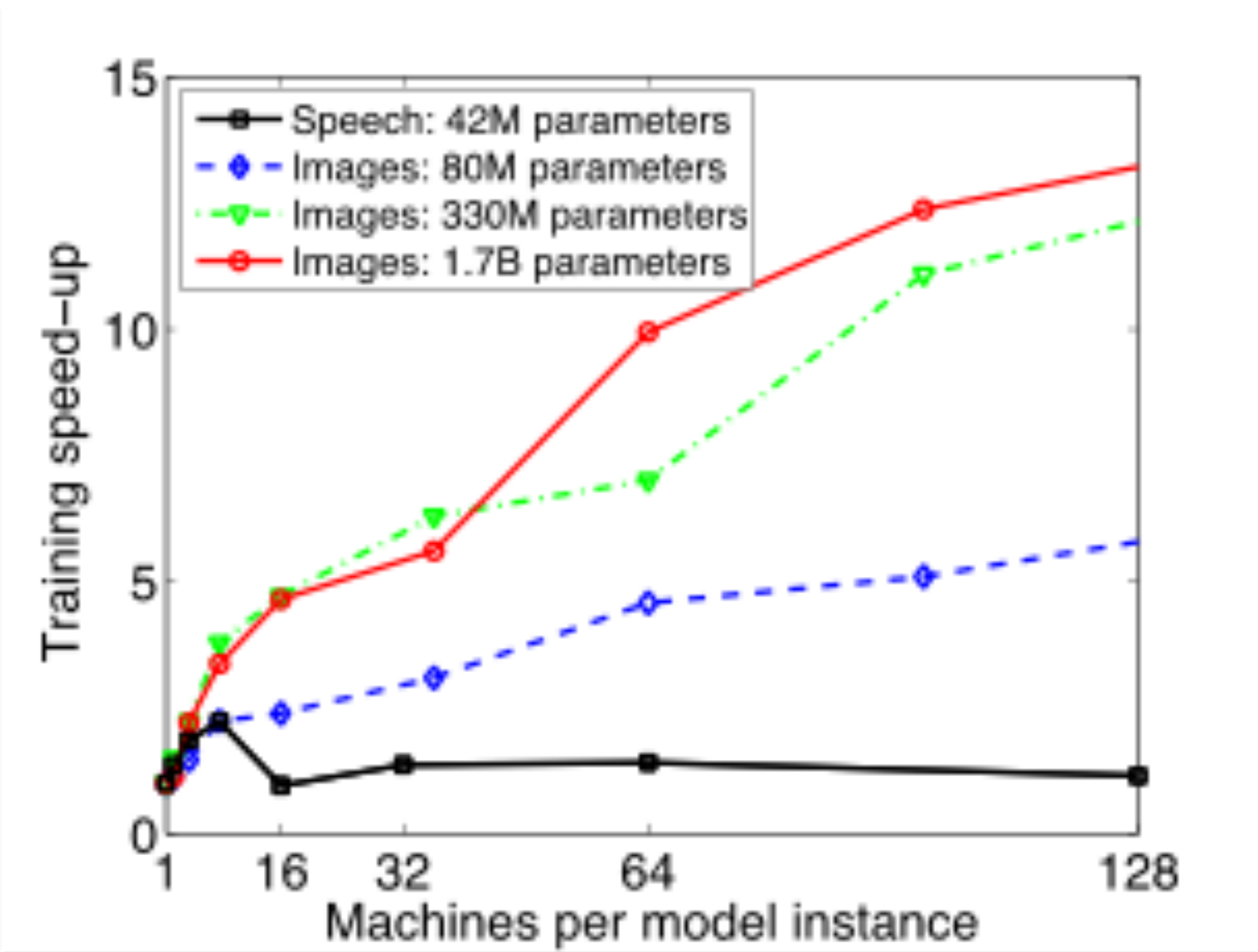
How Does Distributed ML Training Work?



Convergence - Not Too Shabby



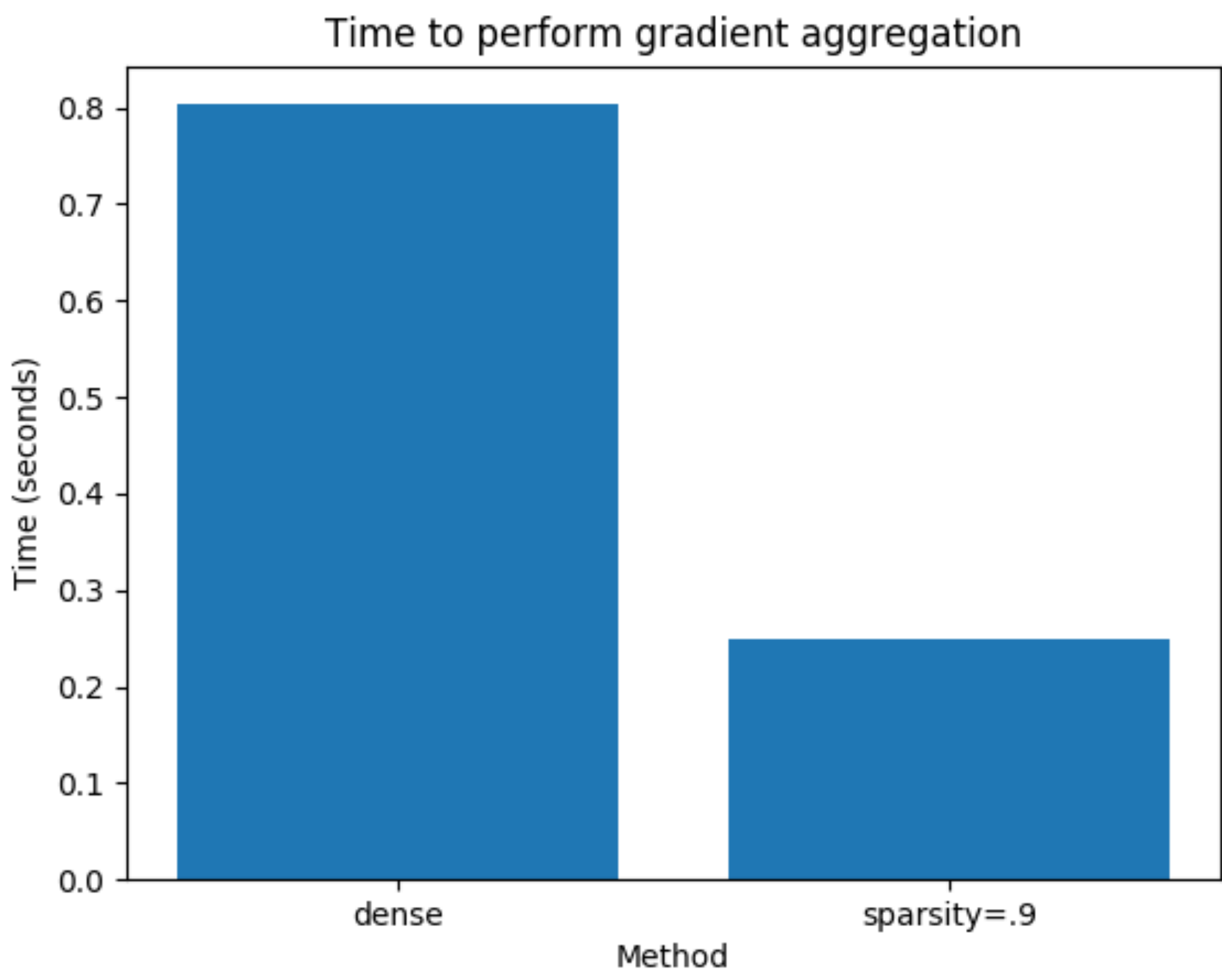
How is Performance?



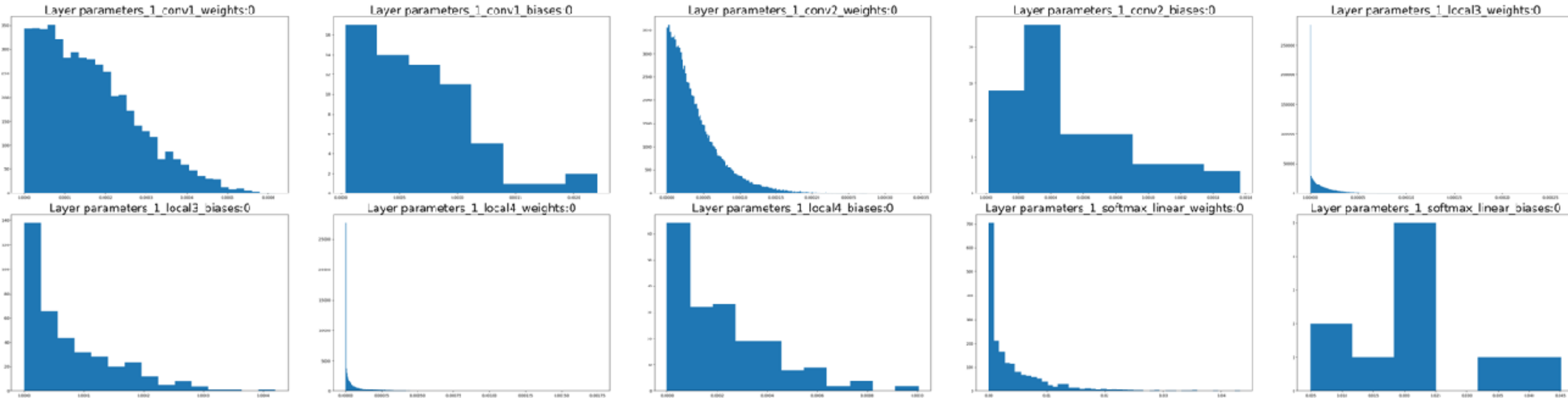
"Large Scale Distributed Deep Networks" [Dean et al., NIPS 2012]

Not as good as we'd like

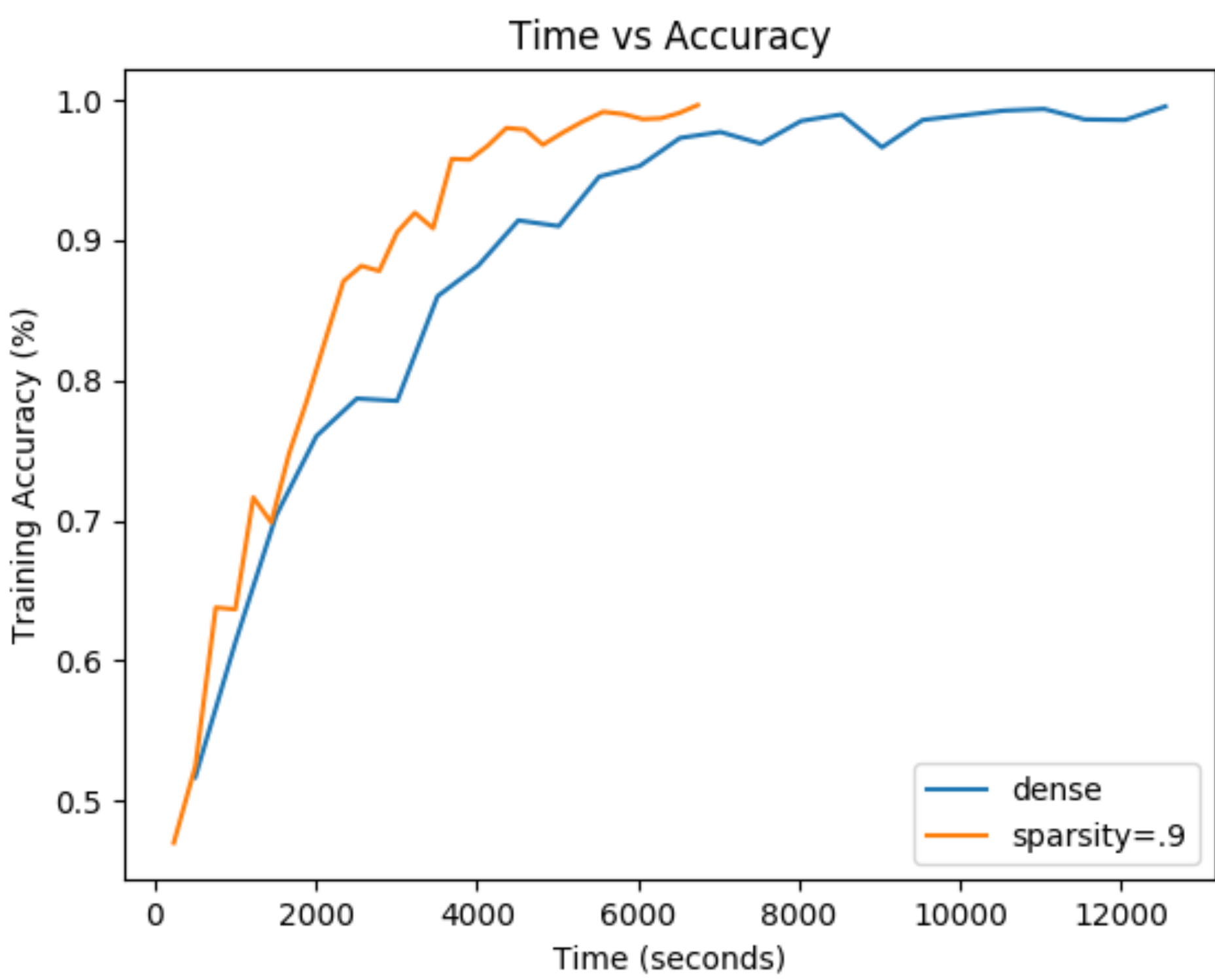
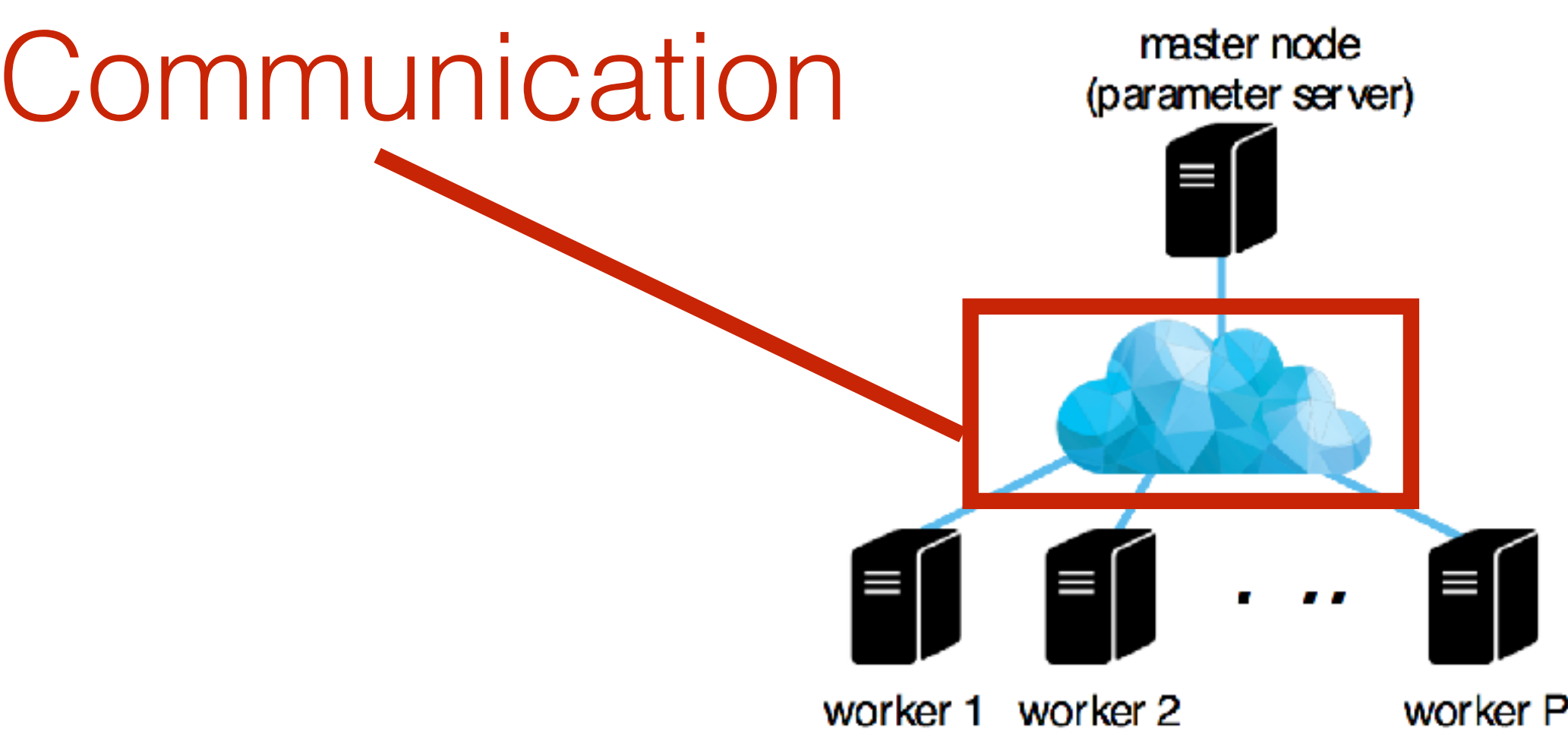
Results



Gradient Values Close to 0



What's the Issue?



Update

As of 4/14/2017, we found out that this idea has been explored by Fikri Aji et al. in <https://arxiv.org/abs/1704.05021> with similar results.