

# Communication Efficiency

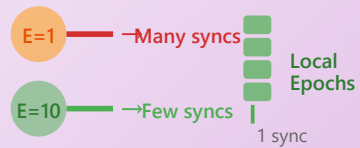
## Gradient Compression



Sparsification, quantization

 10-100x reduction

## Local Updates




More local epochs

 Linear in  $E$  reduction

## Model Compression



Pruning, distillation

 2-10x reduction