FedAvg & FedProx

FedAvg

$$w = \Sigma(n_k/n \times w_k)$$

w_1 $n_1 = 100$ + w_2 $n_2 = 150$ + w_3 $n_3 = 80$ → w_global
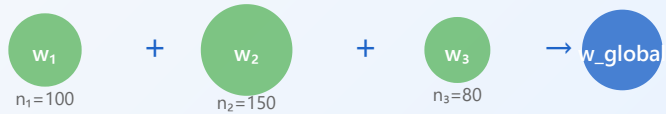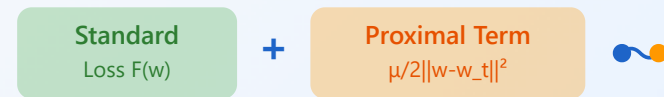
- Simple weighted average
- Fast convergence
- Works well with IID data

FedProx

$$\min F(w) + \mu/2||w-w\_t||^2$$

Standard		Proximal Term
Loss $F(w)$	+	$\mu/2||w-w\_t||^2$

- Adds proximal term
- Handles heterogeneity
- More robust