$$\min_{v\in\mathbb{R},\, g\in\mathbb{R}^d} \quad v$$

$$\text{s.t.}\ \forall i,\ v \geq u_i + \langle z_i^\star,\, x - x_i\rangle$$

$$+ \frac{1}{2(1-\ell/L)}\left(\frac{1}{L}\|g - z_i^\star\|^2 + \ell\|x - x_i\|^2 - 2\frac{\ell}{L}\langle z_i^\star - g,\, x_i - x\rangle\right)$$