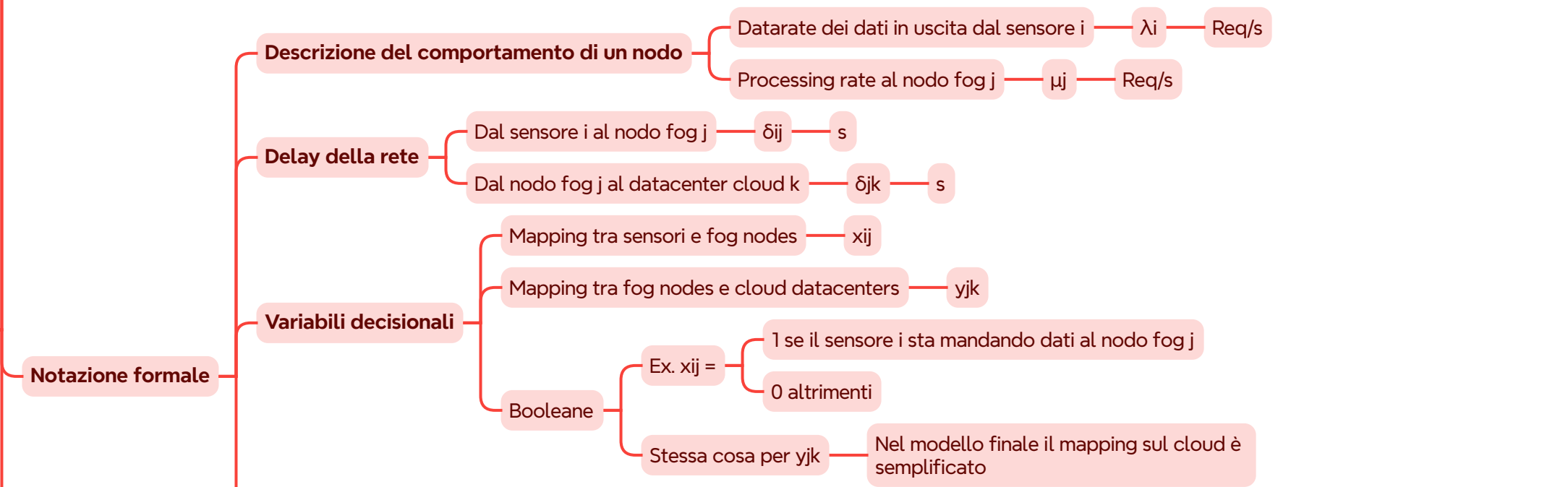
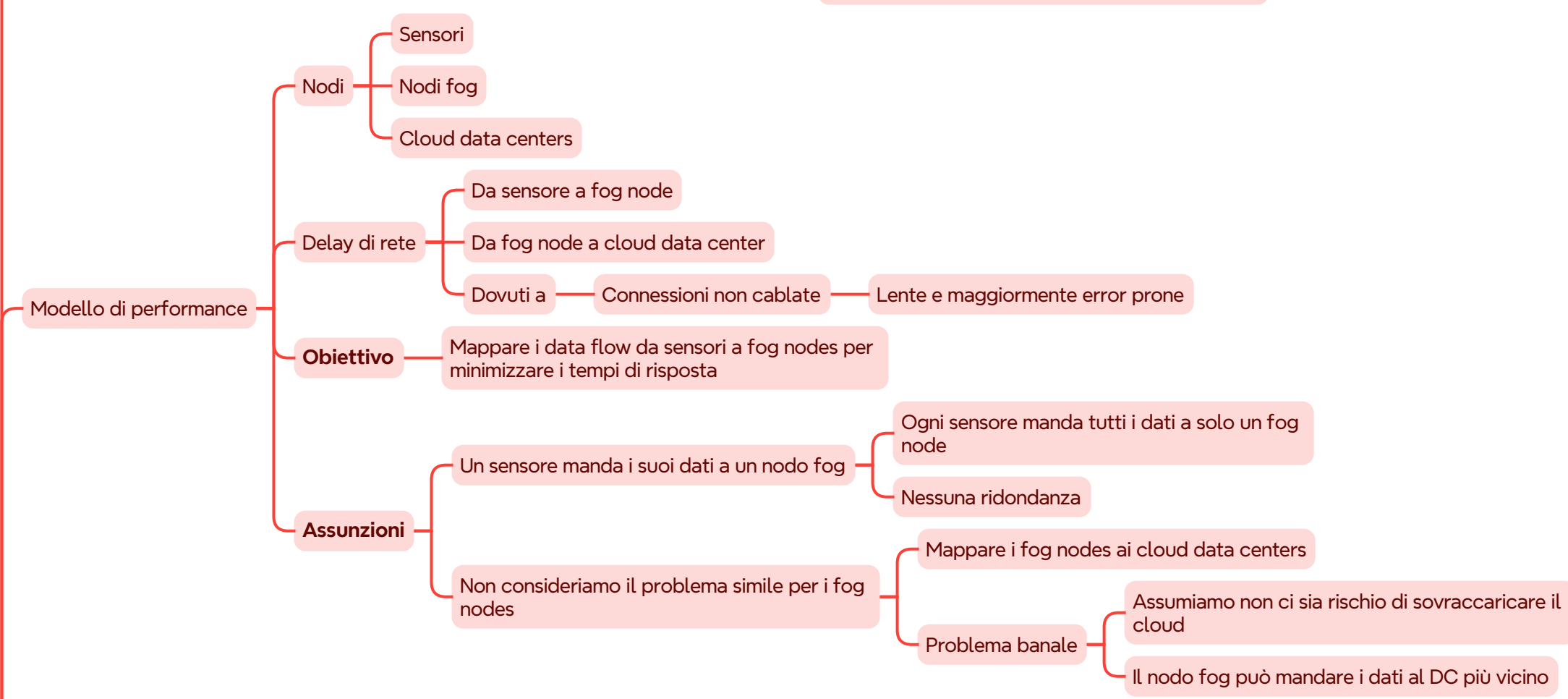
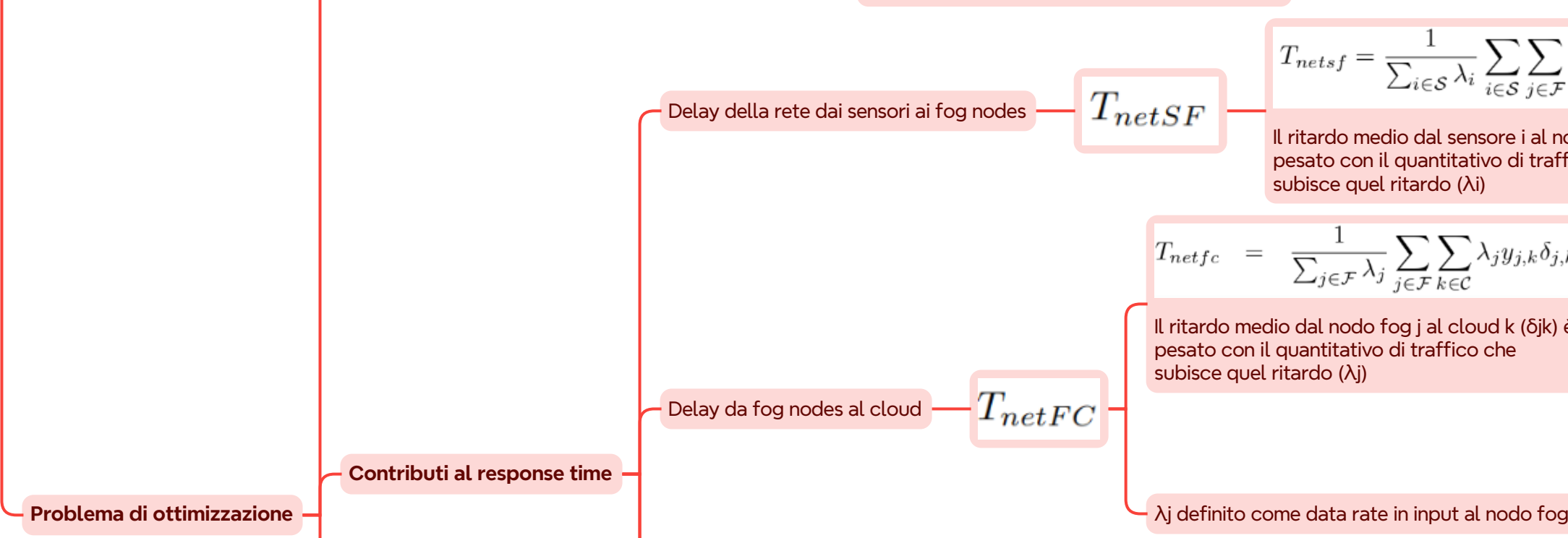
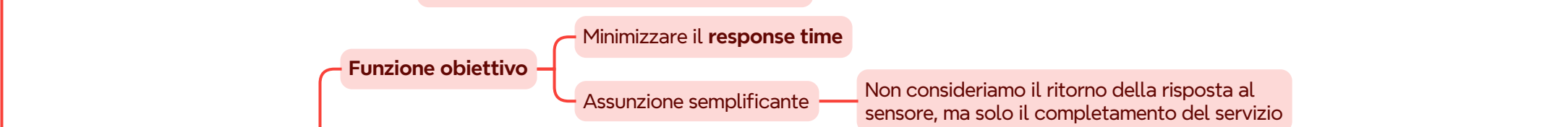


Sensor mapping (parte 1)

1. Modelli di ottimizzazione

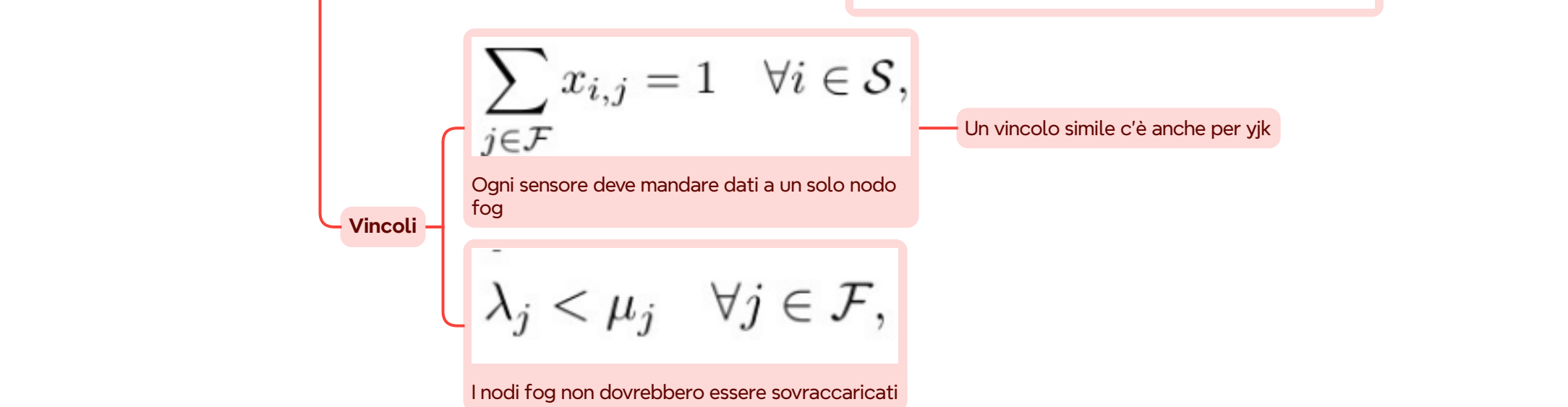
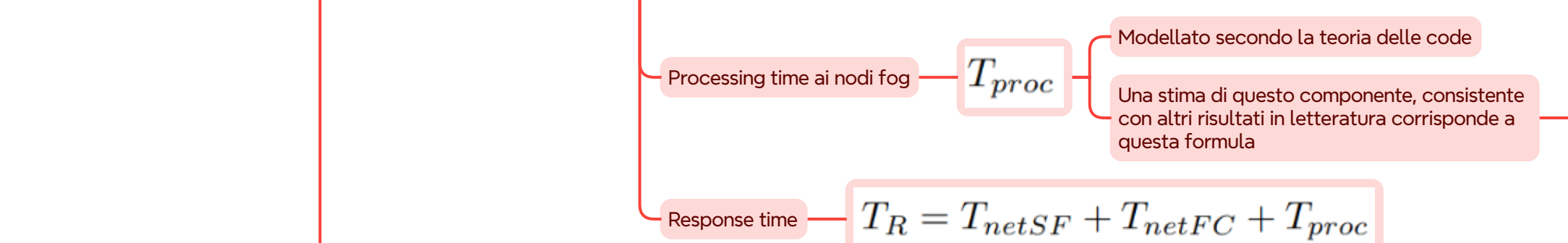


Symbol	Meaning/Role
Model parameters	
\mathcal{S}	Set of sensors
\mathcal{F}	Set of fog nodes
\mathcal{C}	Set of cloud data centers
λ_i	Outgoing data rate from sensor i
μ_j	Processing rate at fog node j
δ_{ij}	Communication latency between sensor i and fog node j
δ_{jk}	Communication latency between fog node j and cloud k
Model variables	
i	Index of a sensor
j	Index of a fog node
k	Index of a cloud data center
Data flows description	
$x_{i,j}$	Data flow from sensor i to fog node j
$y_{j,k}$	Data flow from fog node j to cloud data center k
Scenario description	
d	Average network delay
$\delta\rho$	Network delay to processing time ratio
ρ	Infrastructure load

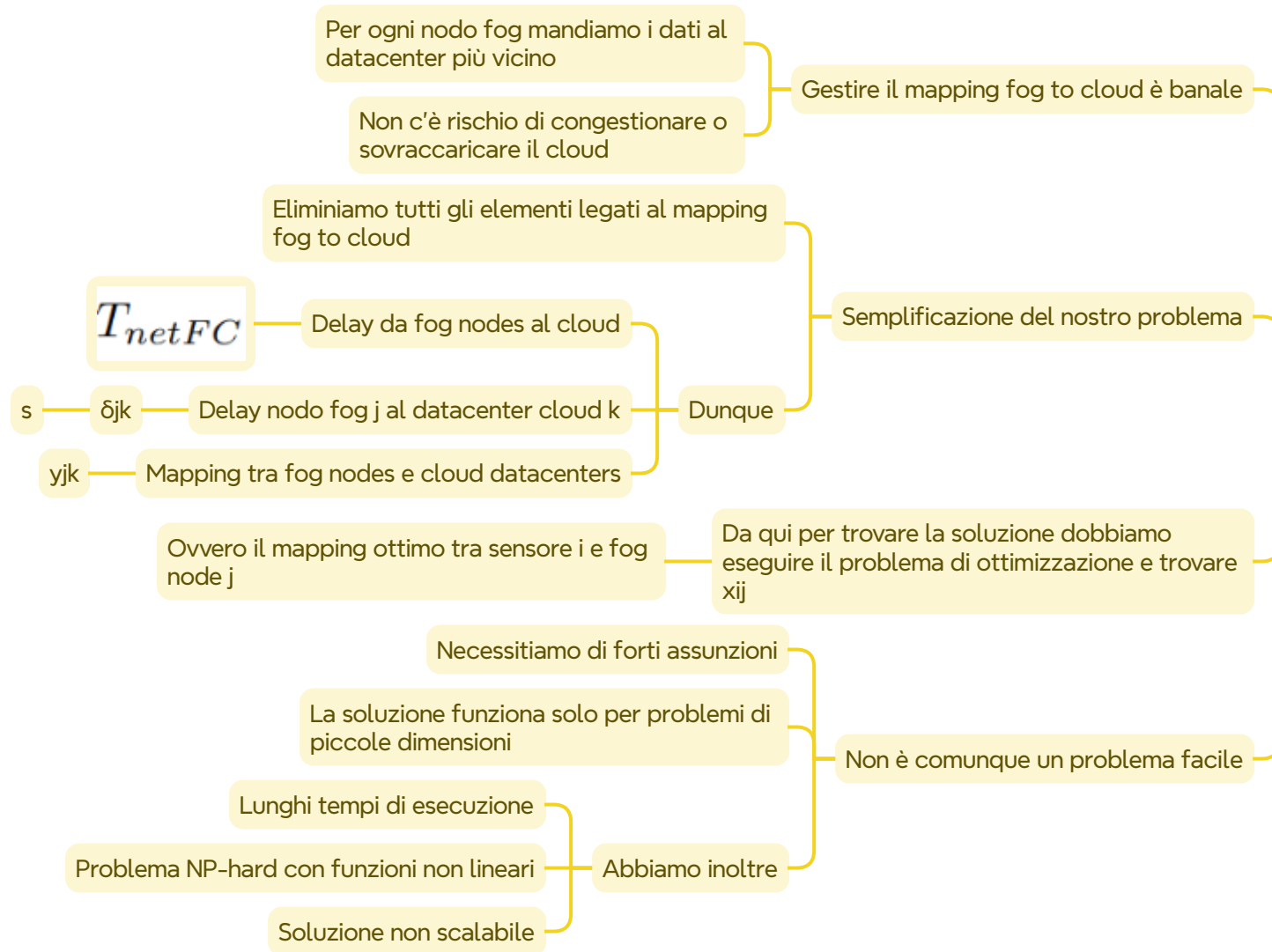


$\lambda_j = \sum_{i \in \mathcal{S}} x_{i,j} \cdot \lambda_i$

Ovvero la somma dei data rates dei sensori allocati al nodo j



3. Problema semplificato



2. Definizione dello scenario

