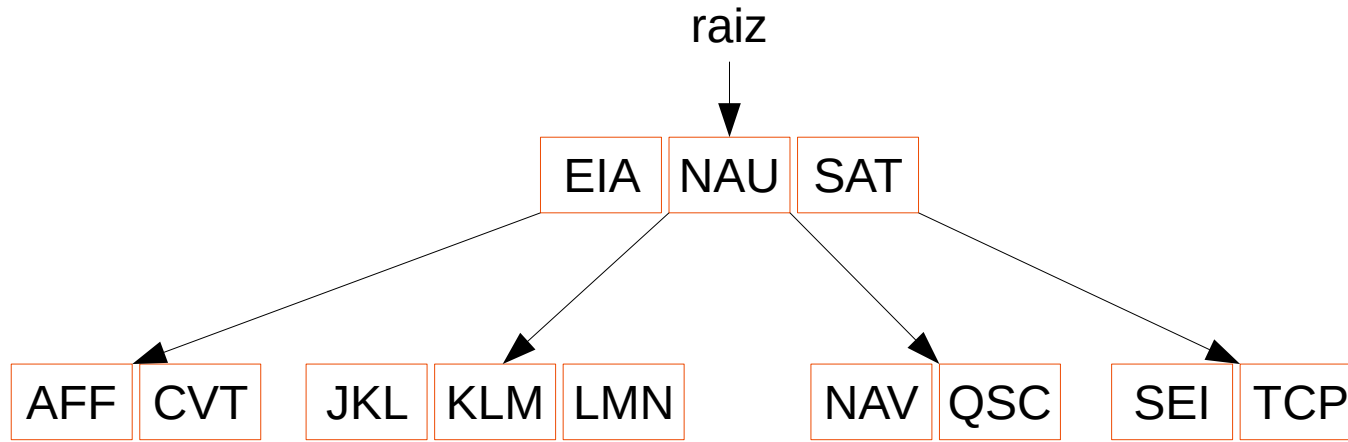
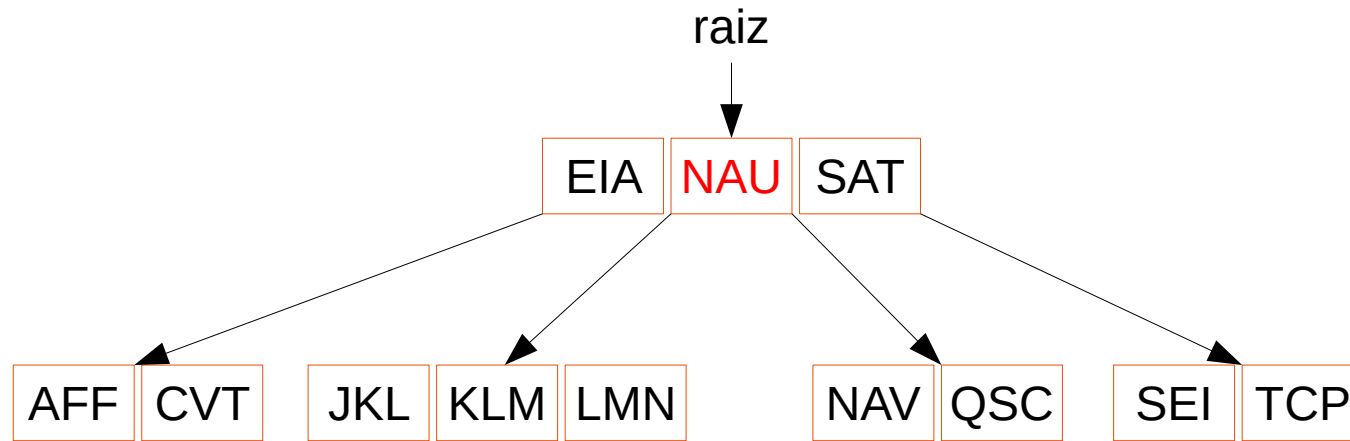


Questão 11 – Árvore 2-3-4



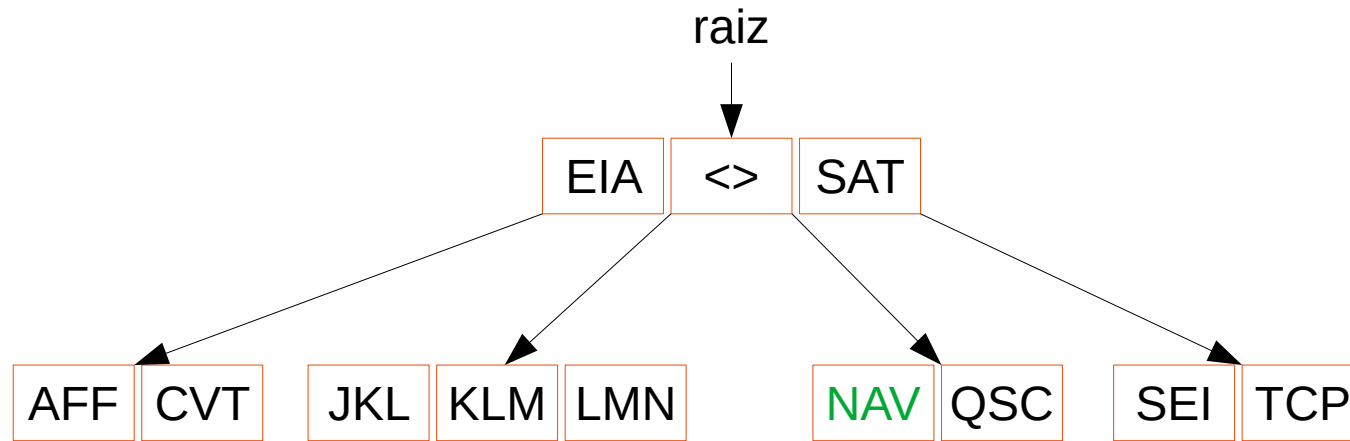
Remover NAU

Remoção simples

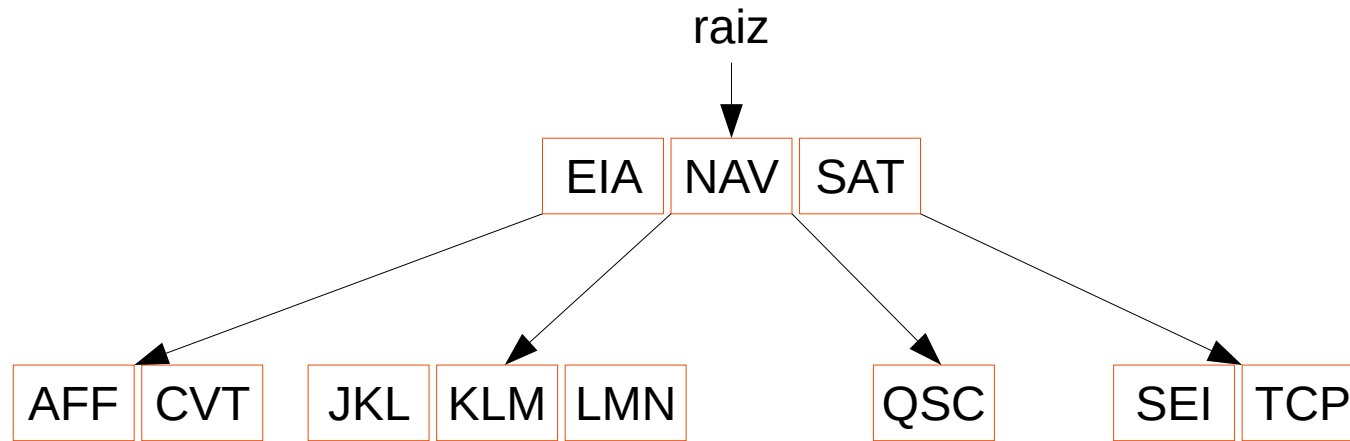


Remover NAU

Substitui pelo Sucessor



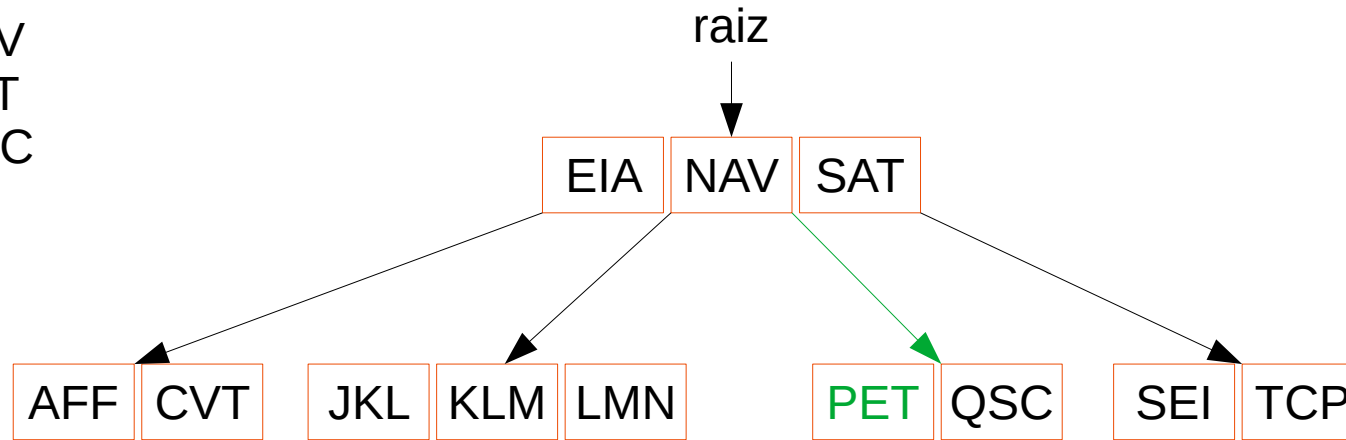
Remover NAU



Inserir PET

Inserção simples

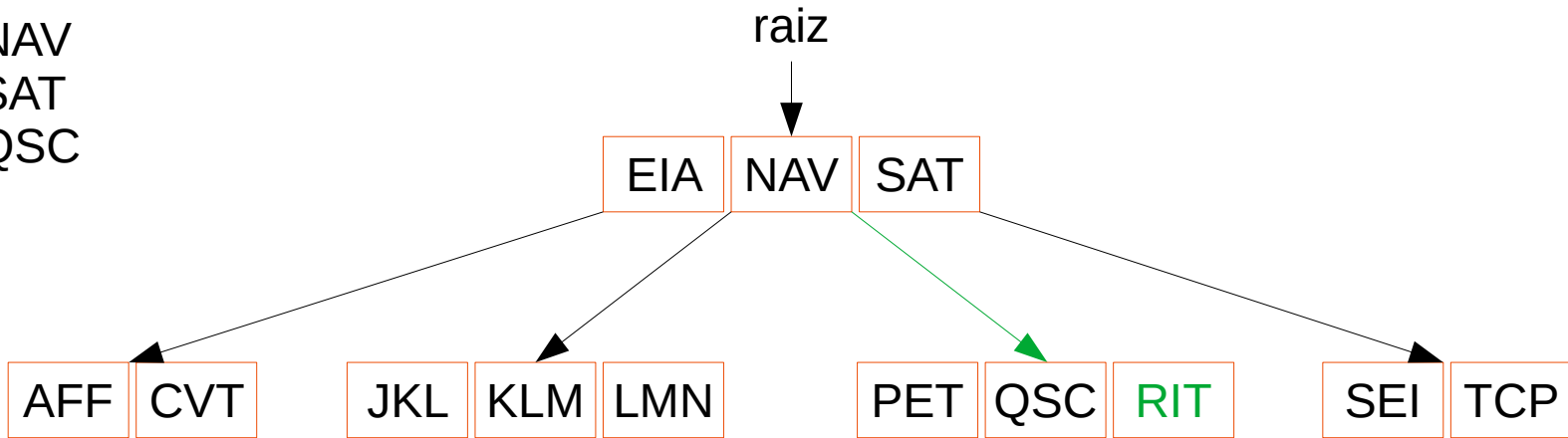
PET > NAV
PET < SAT
PET < QSC



Inserir RIT

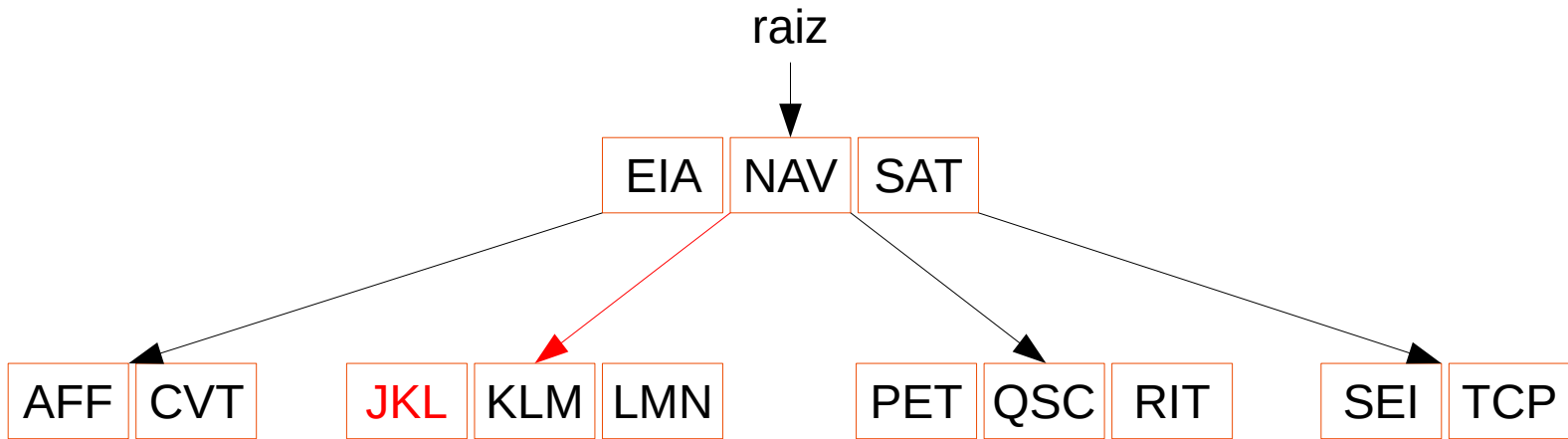
Inserção simples

RIT > NAV
RIT < SAT
RIT > QSC

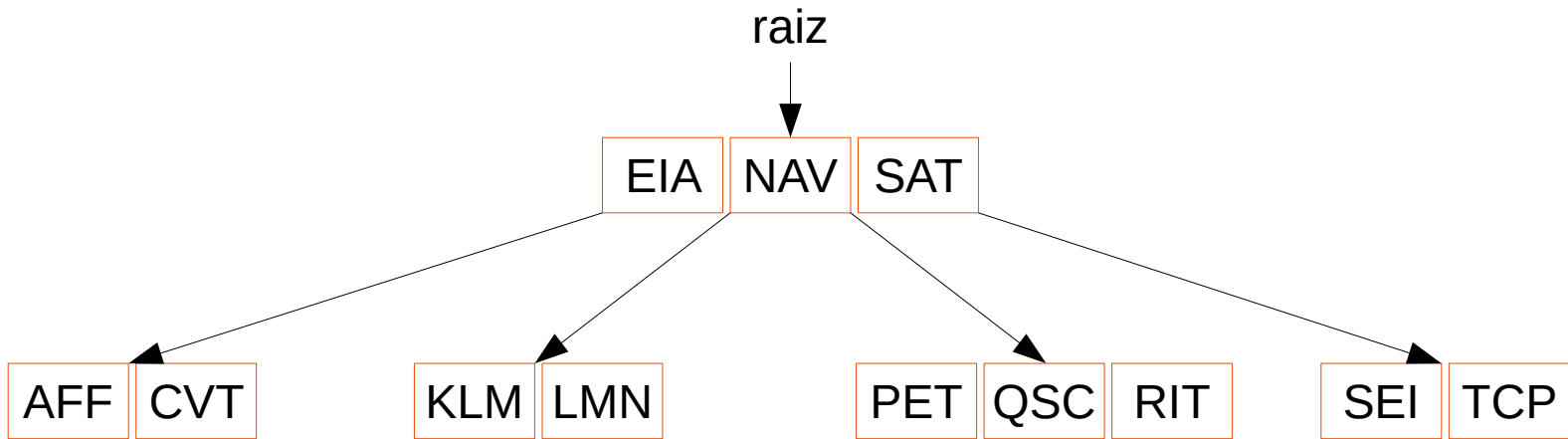


Remover JKL

Remoção simples



Remover JKL

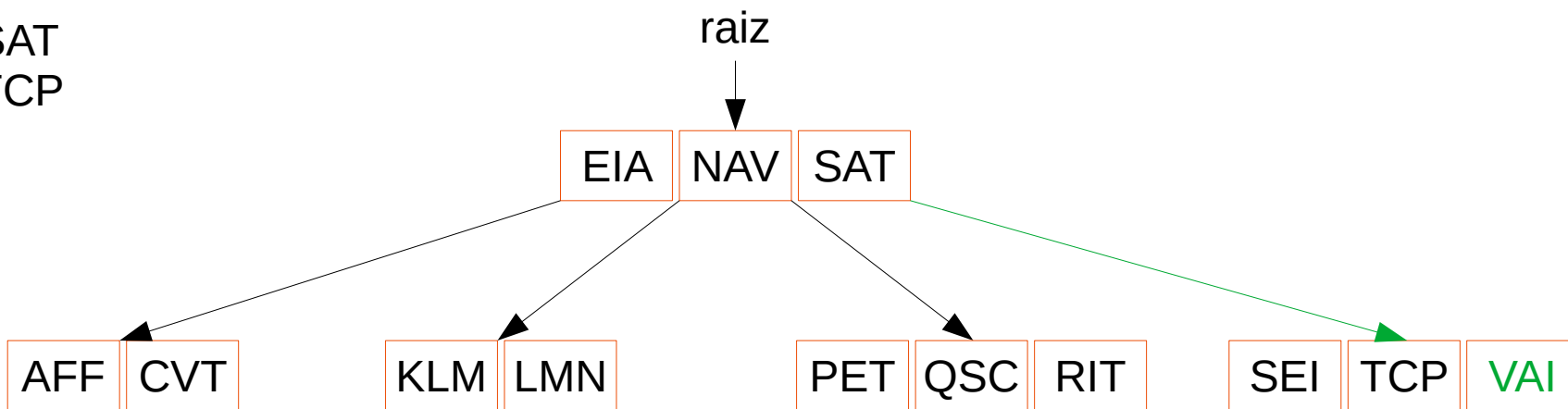


Inserir VAI

Inserção simples

VAI > SAT

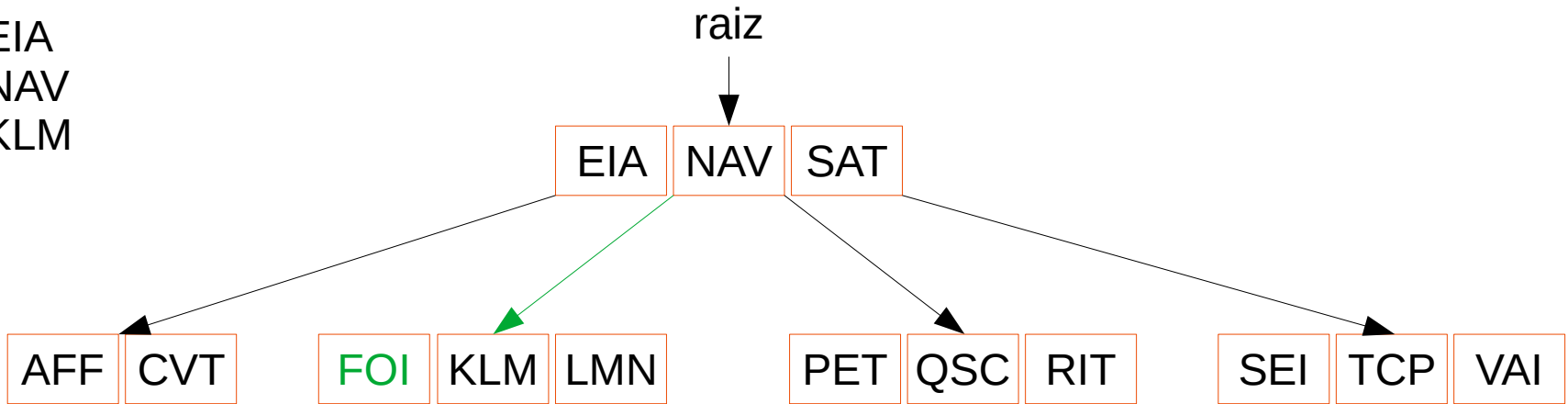
VAI > TCP



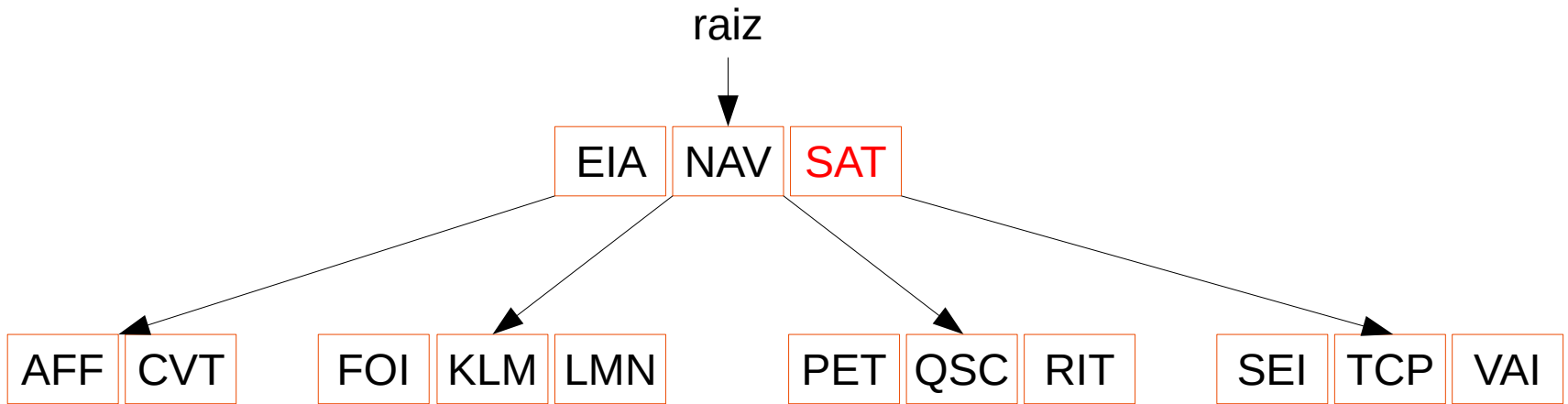
Inserir FOI

Inserção simples

FOI > EIA
FOI < NAV
FOI < KLM

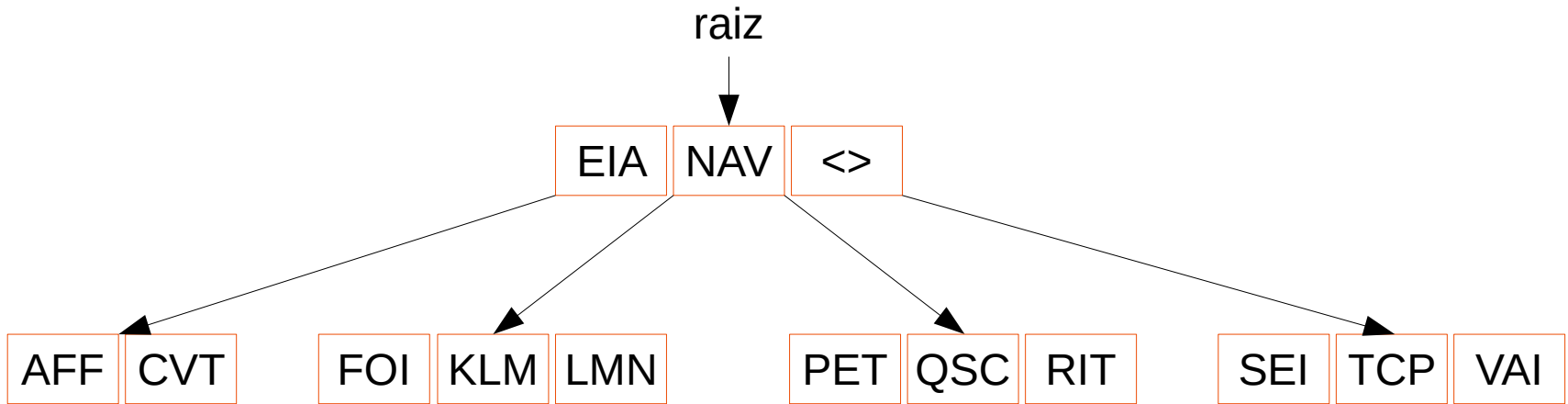


Remover SAT

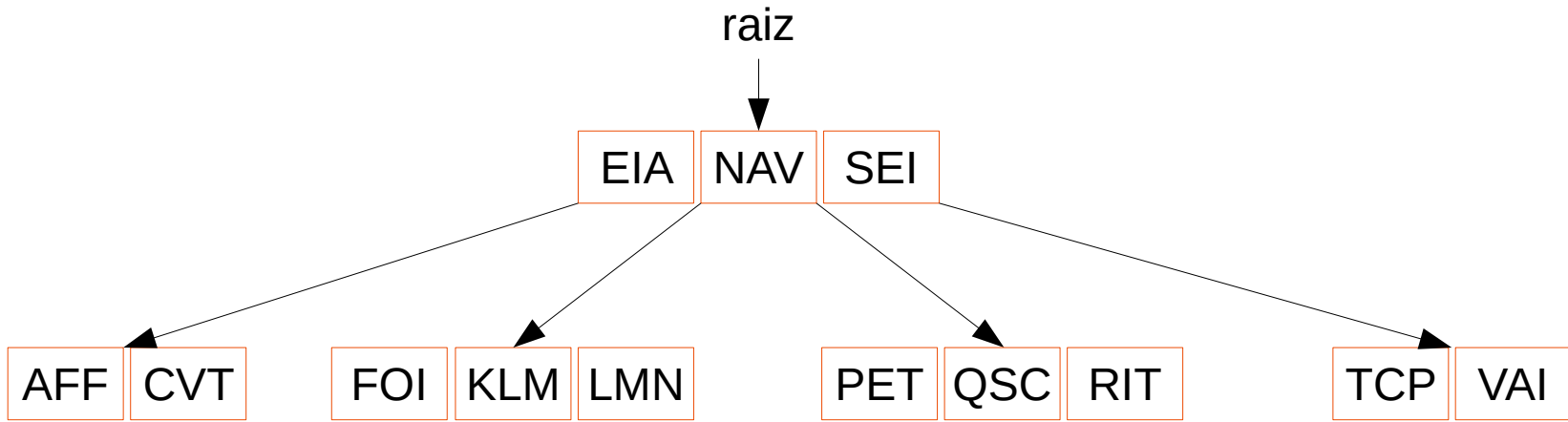


Remover SAT

Substitui pelo Sucessor



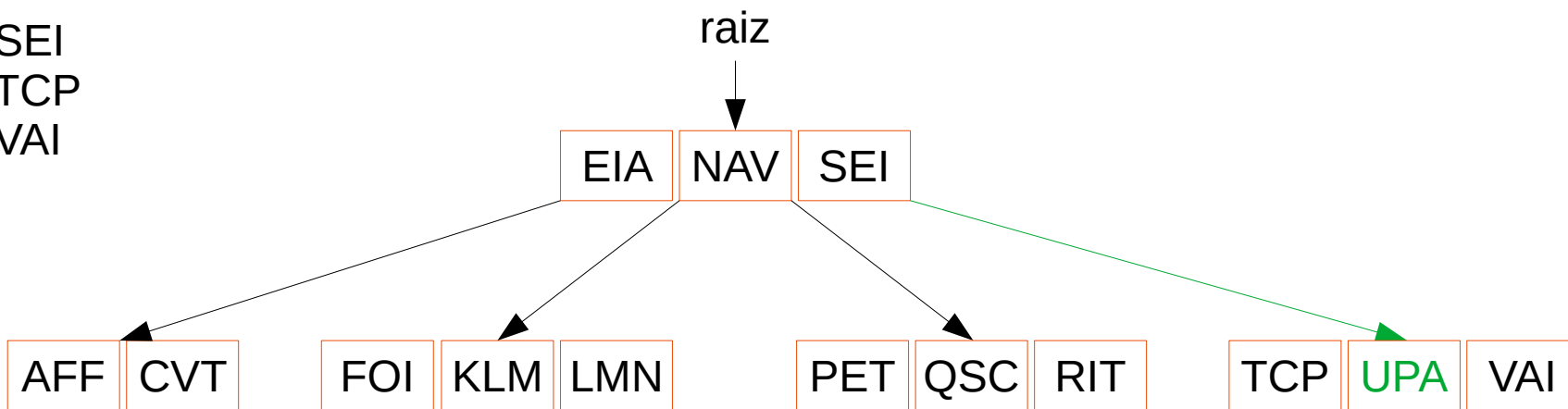
Remover SAT



Inserir UPA

Inserção simples

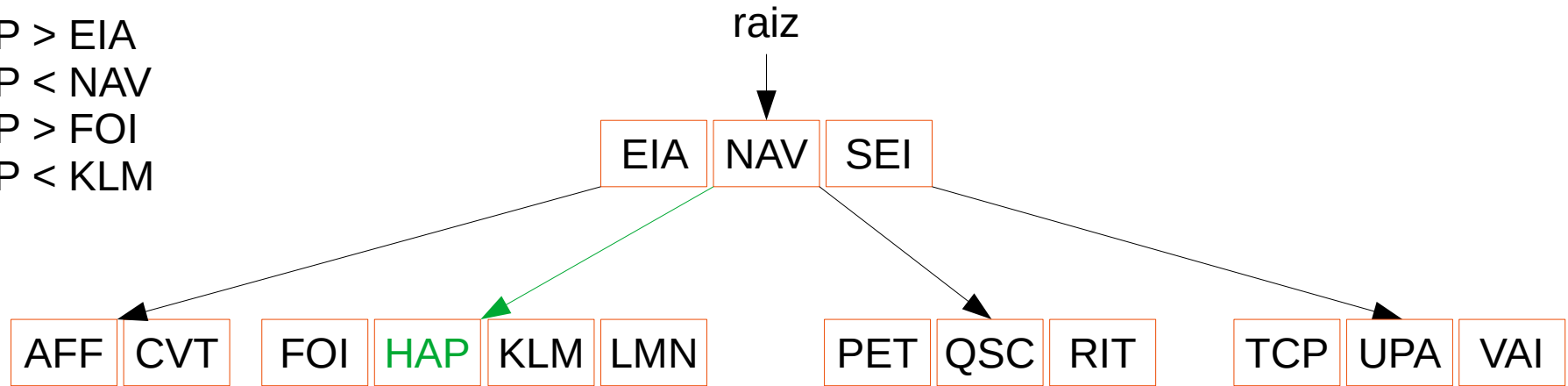
UPA > SEI
UPA > TCP
UPA < VAI



Inserir HAP

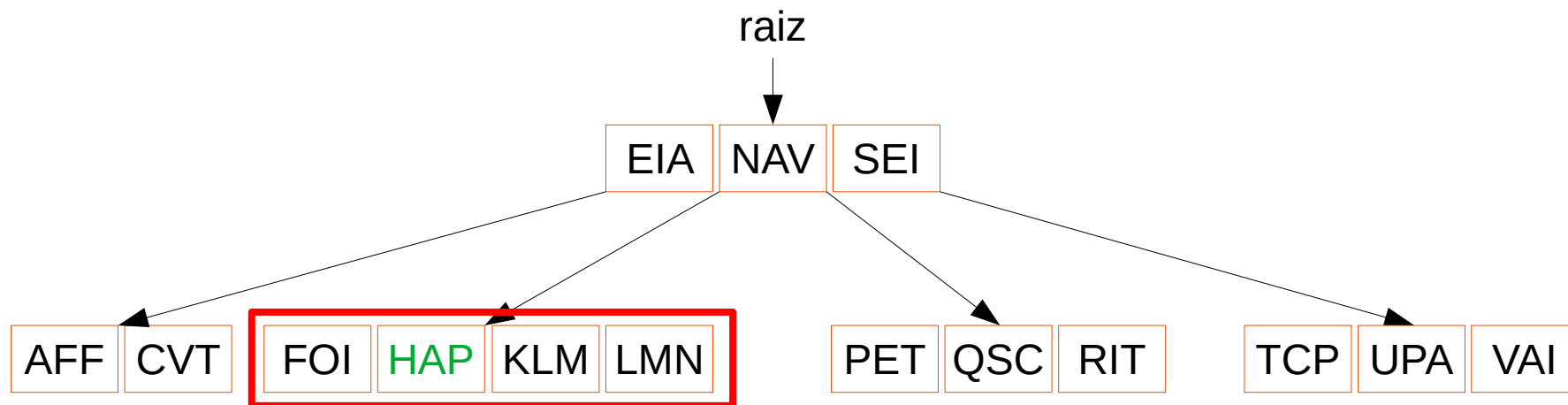
Inserção simples

HAP > EIA
HAP < NAV
HAP > FOI
HAP < KLM



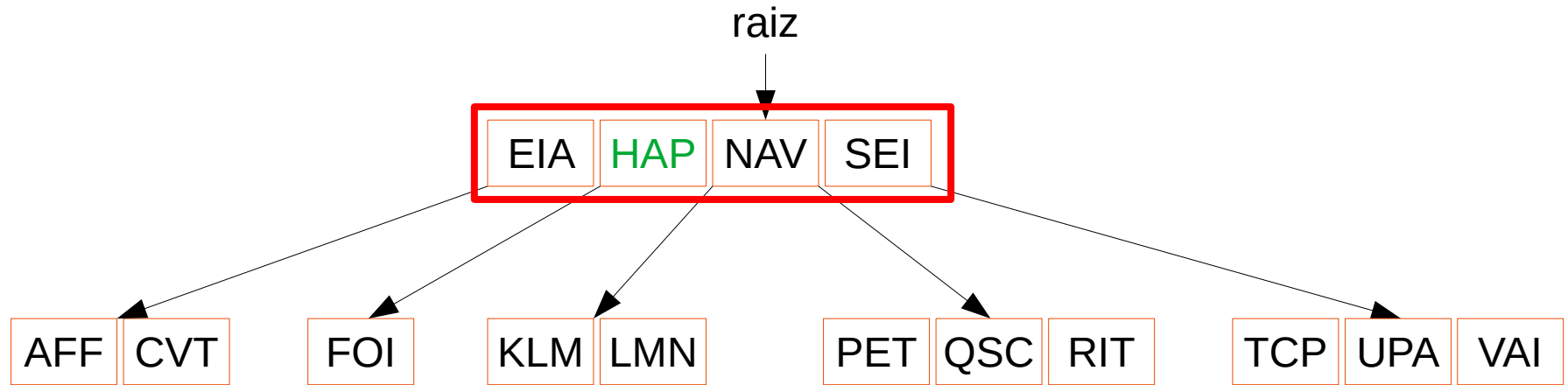
Inserir HAP

Ficou cheio, sobe o HAP



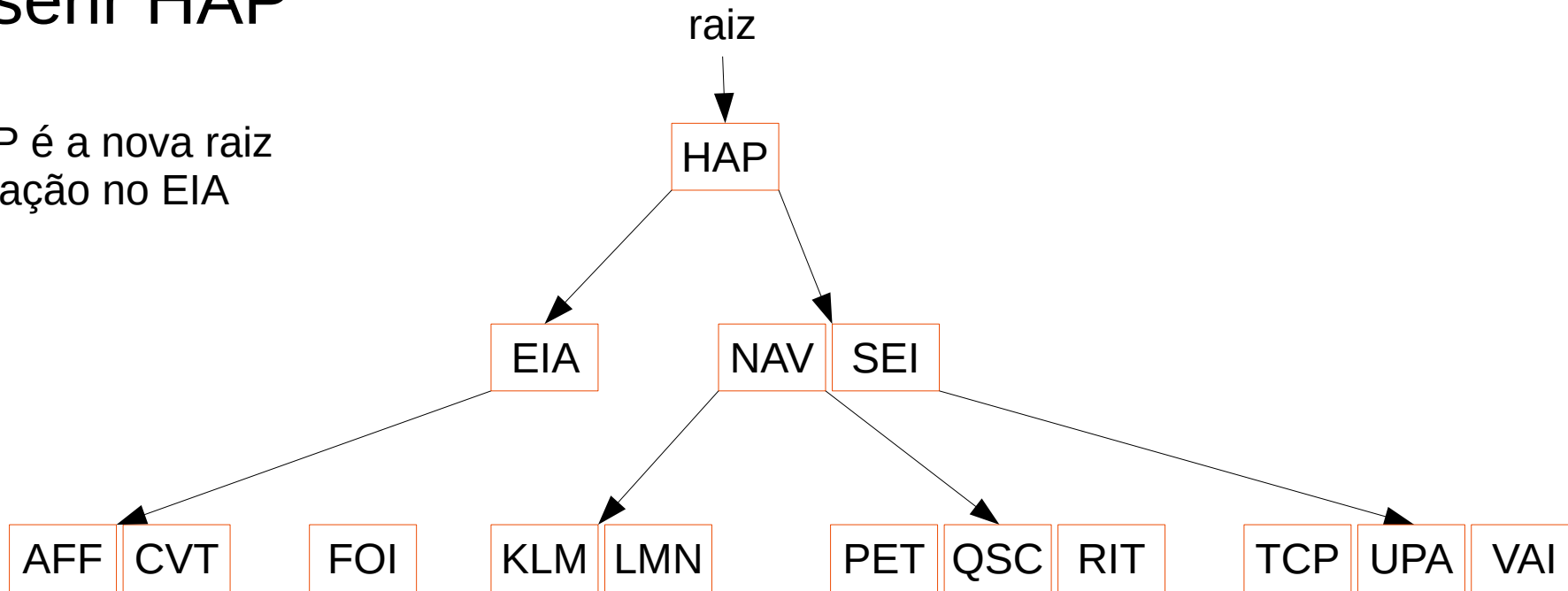
Inserir HAP

HAP sobe para a raiz

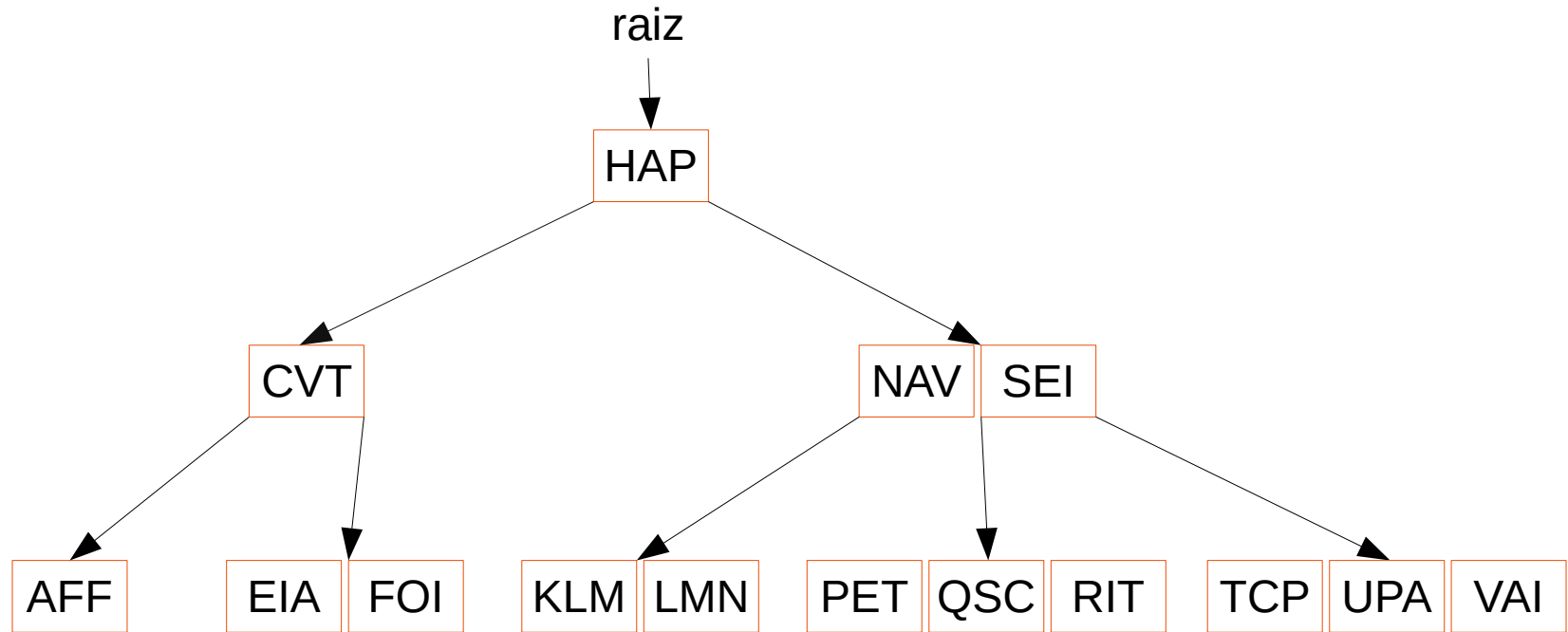


Inserir HAP

HAP é a nova raiz
Rotação no EIA

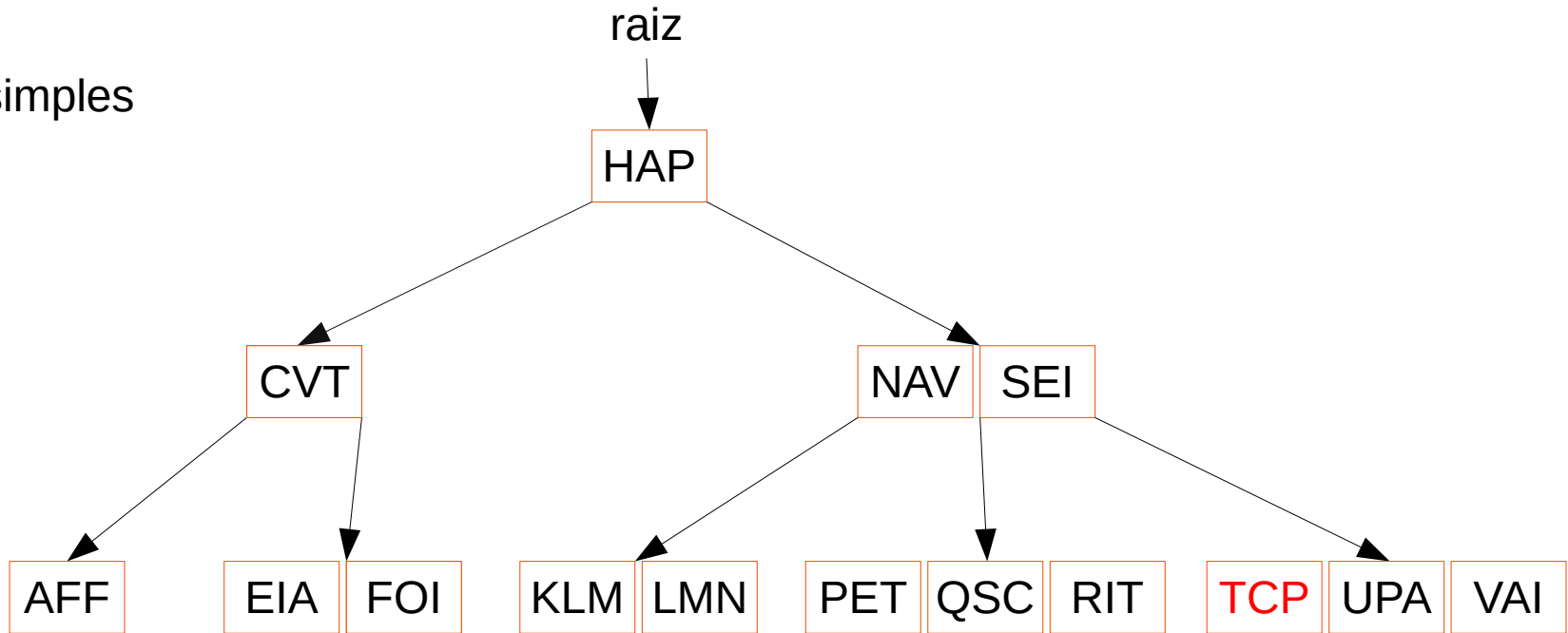


Inserir HAP

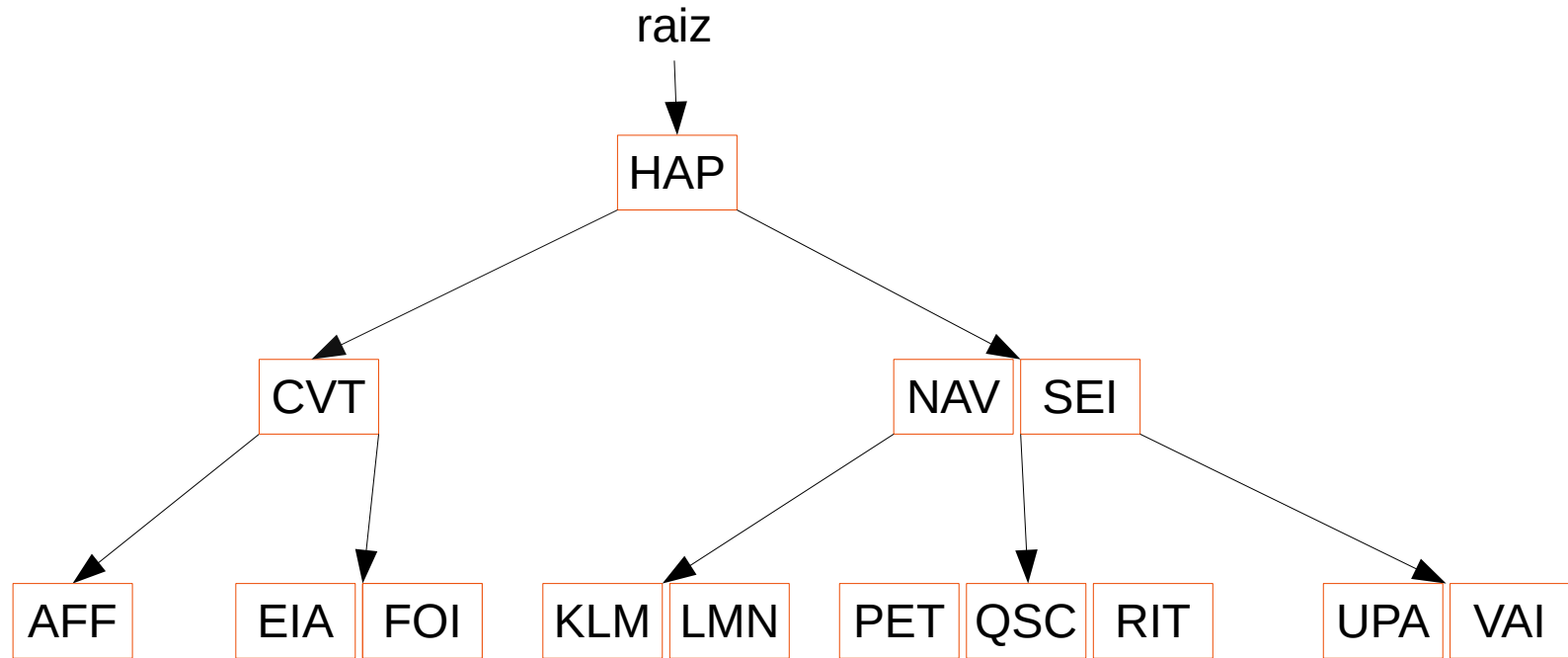


Remover TCP

Remoção simples



Remover TCP



Resultado:

