the dns name hierarchy

- each node corresponds to a name

this node is `startup.net`

this node is `pc1.uniroma3.it`
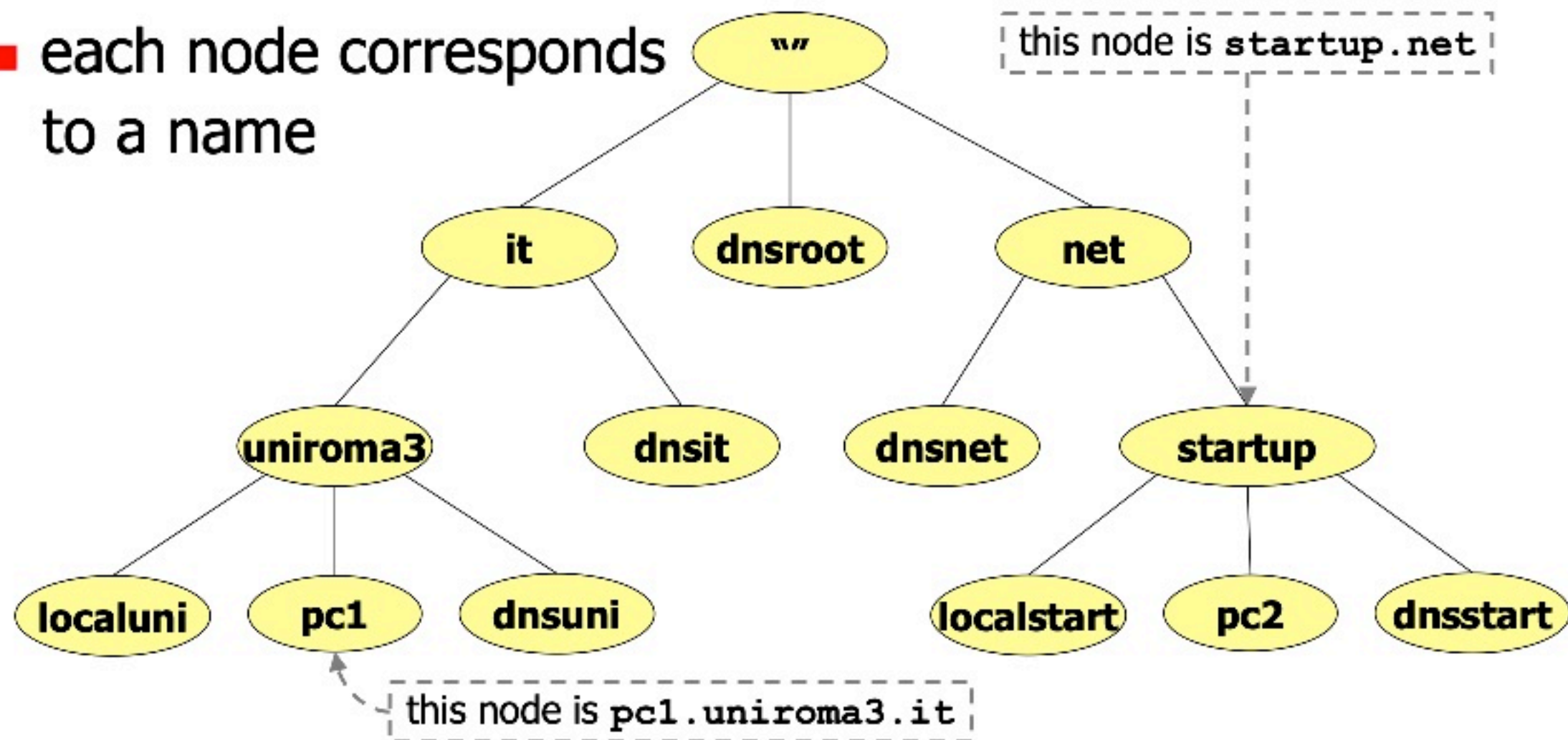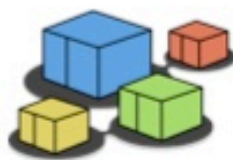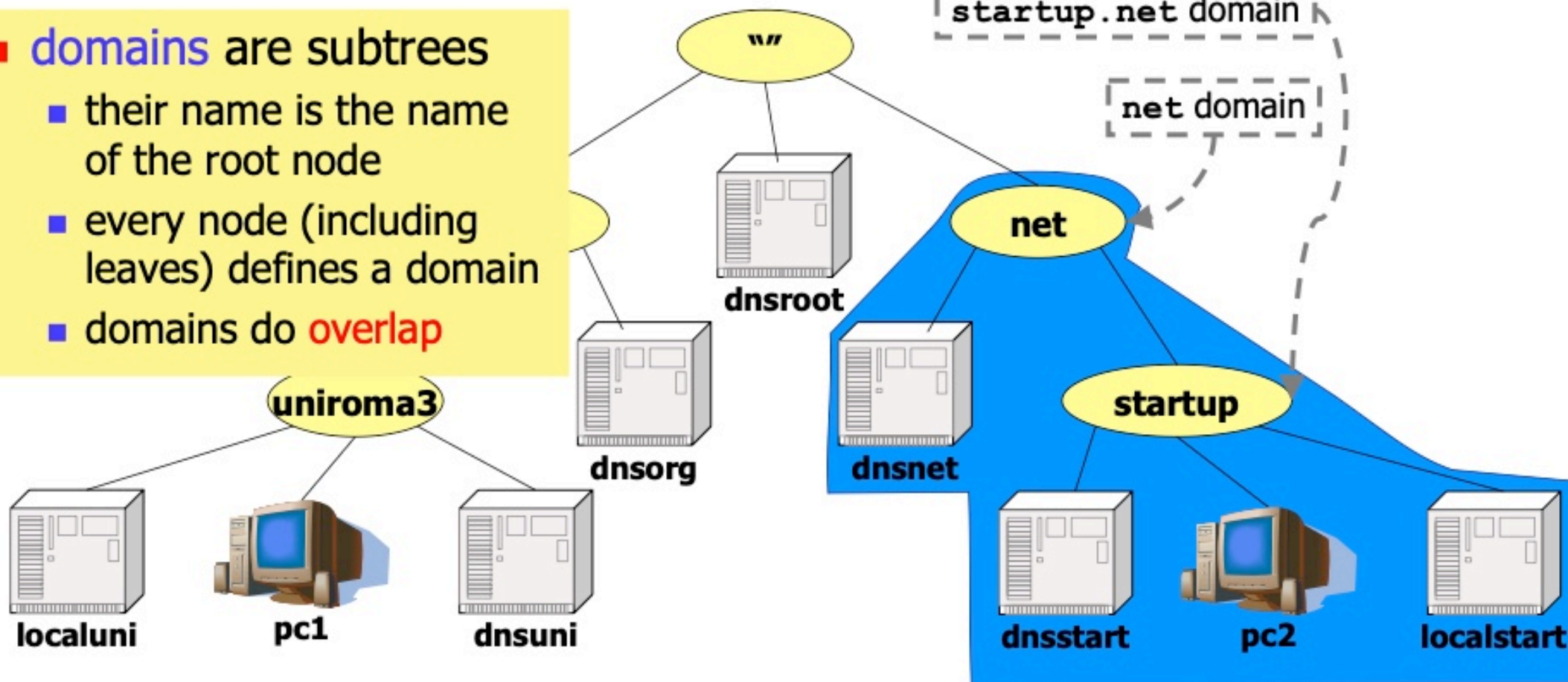
the dns name hierarchy

- **domains** are subtrees
  - their name is the name of the root node
  - every node (including leaves) defines a domain
  - domains do overlap

""

dnsroot

uniroma3

dnsorg

localuni

pc1

dnsuni

`startup.net` domain

`net` domain

net

dnsnet

startup

dnsstart

pc2

localstart
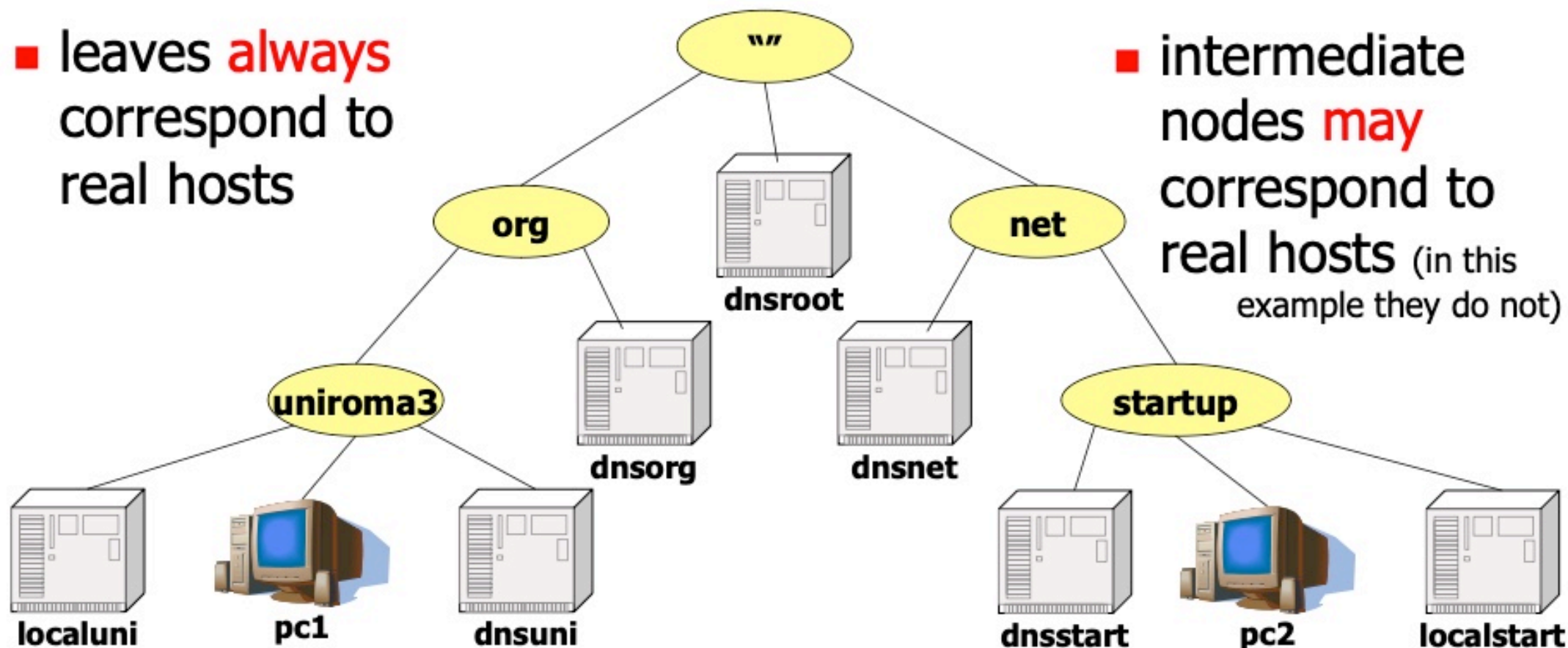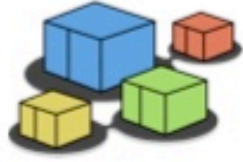
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last update: Oct 2023

the dns name hierarchy

- leaves **always** correspond to real hosts

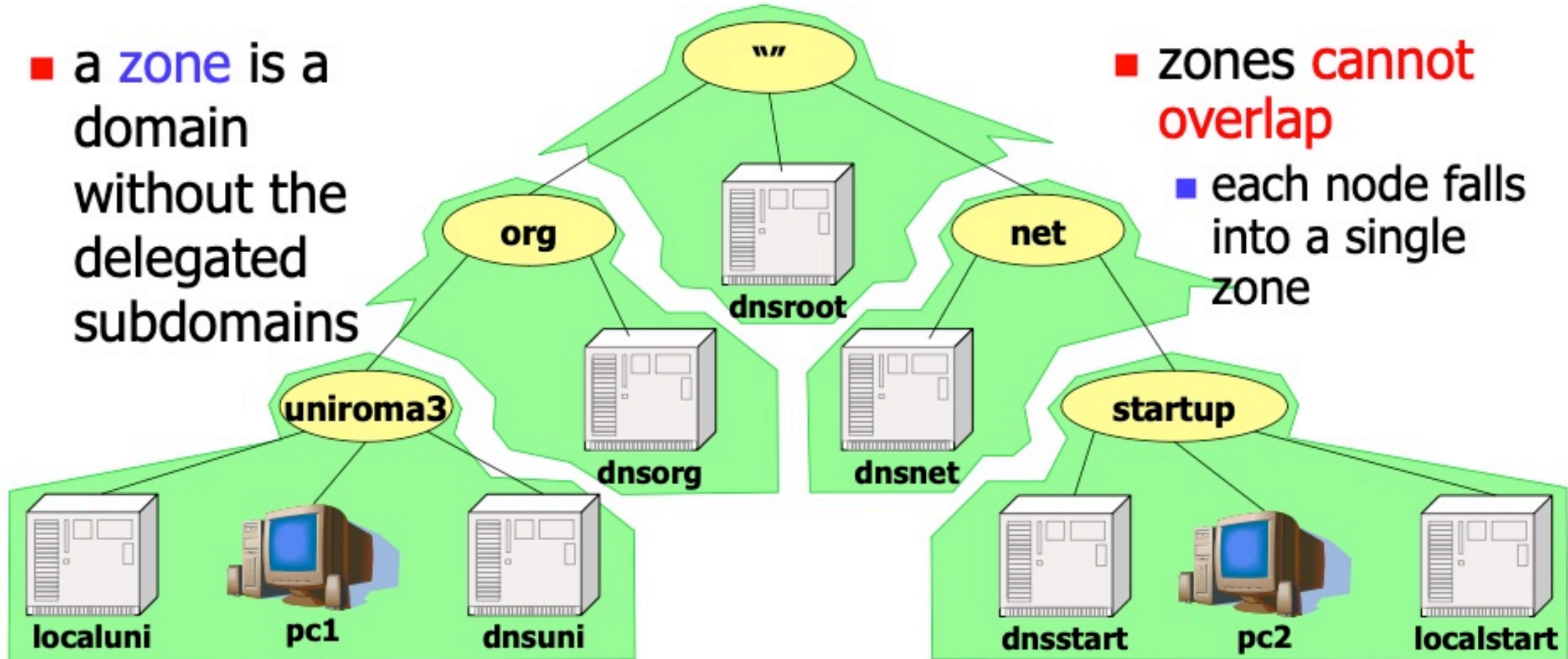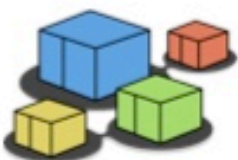- intermediate nodes **may** correspond to real hosts (in this example they do not)
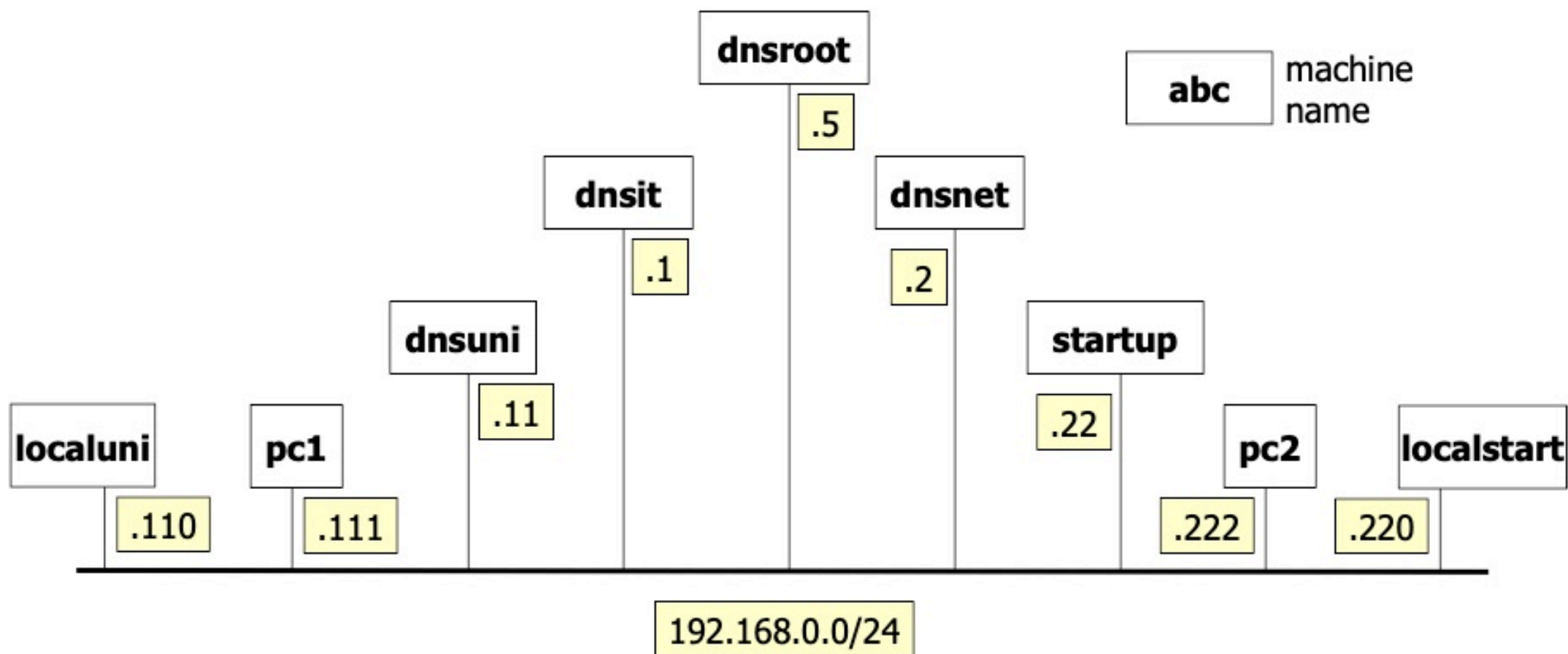
dnsroot

org dnsorg

net dnsnet

uniroma3

startup

localuni   pc1   dnsuni

dnsstart   pc2   localstart

zones

- a zone is a domain without the delegated subdomains

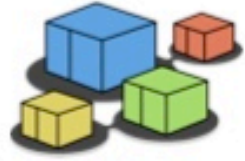- zones cannot overlap
  - each node falls into a single zone

step 1 – network topology

localuni .110
pc1 .111
dnsuni .11
dnsit .1
dnsroot .5
dnsnet .2
startup .22
pc2 .222
localstart .220

abc — machine name

192.168.0.0/24

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step 1 – dns (zone) hierarchy