

417
- CIDR

- Problem

* Address Exhaustion

* # of Routing Table
entries

Example: 16 class C nets

192.4.16.x

⋮

$\begin{array}{r} 6 \quad 4 \\ 11 \bar{0} . \bar{0} 0100 . \\ \hline 0001 \quad 0000 . \\ \hline 20 \quad x \end{array}$

192.4.31.x

$\begin{array}{r} 6 \quad 4 \\ 11 \bar{0} . \bar{0} 0100 . \\ \hline \end{array}$

111

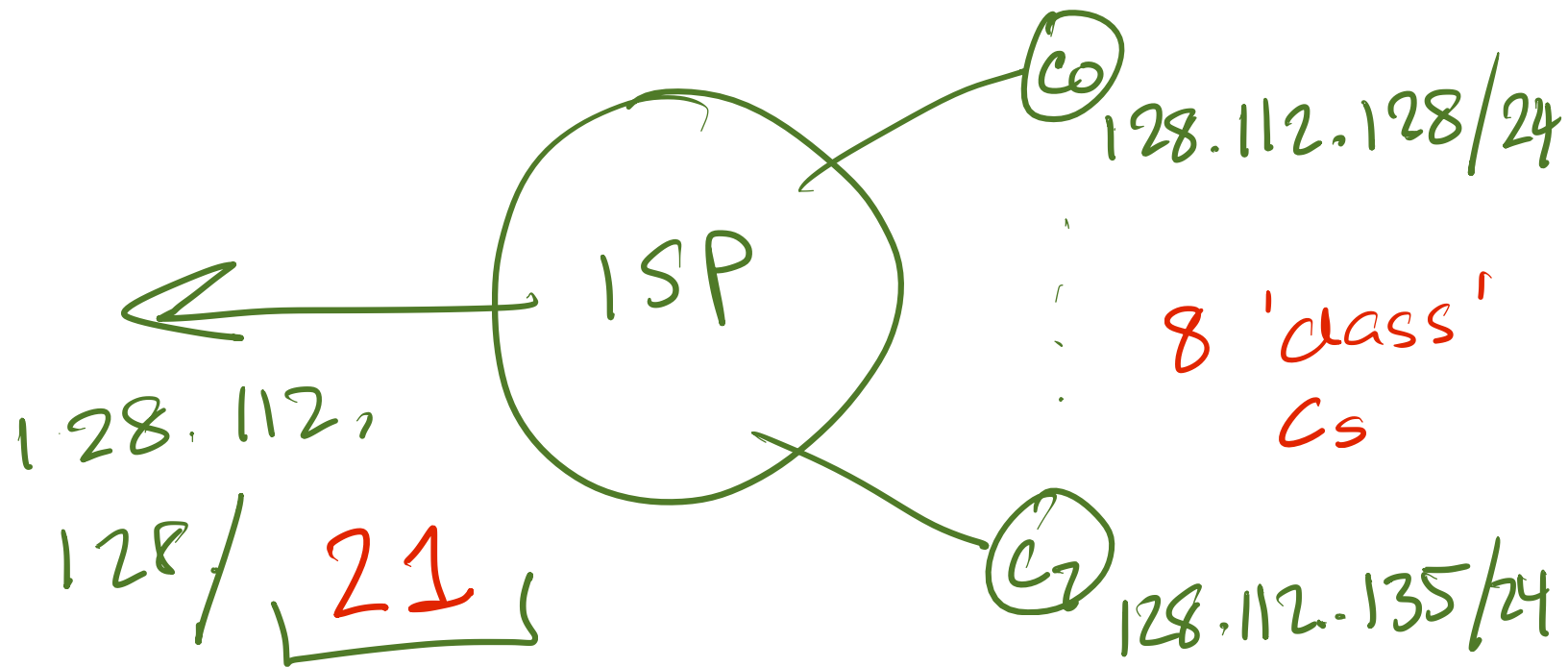
$\begin{array}{r} 0001 \quad 1111 . x \\ \hline 20 \end{array}$

192.4.16 / 20

prefix | len

Routing Protocols carry
prefix / len pairs

CIDR aggregation



128.112.10000000 ← C0
:
128.112.10000111
21 bits in common

with CIDR

- multiple entries in RT
can 'match' an addr

eg. $179.16/16$
 $179.16.15/24$ } can both
be in
RT at
the same
time

$179.16.20.1$
 $179.16.15.22$

Dg is forwarded to
Longest Common matching
prefix.