

mapping the internet

allen pike
steamclock software

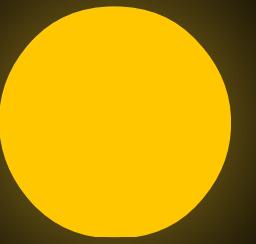




steamclock
software







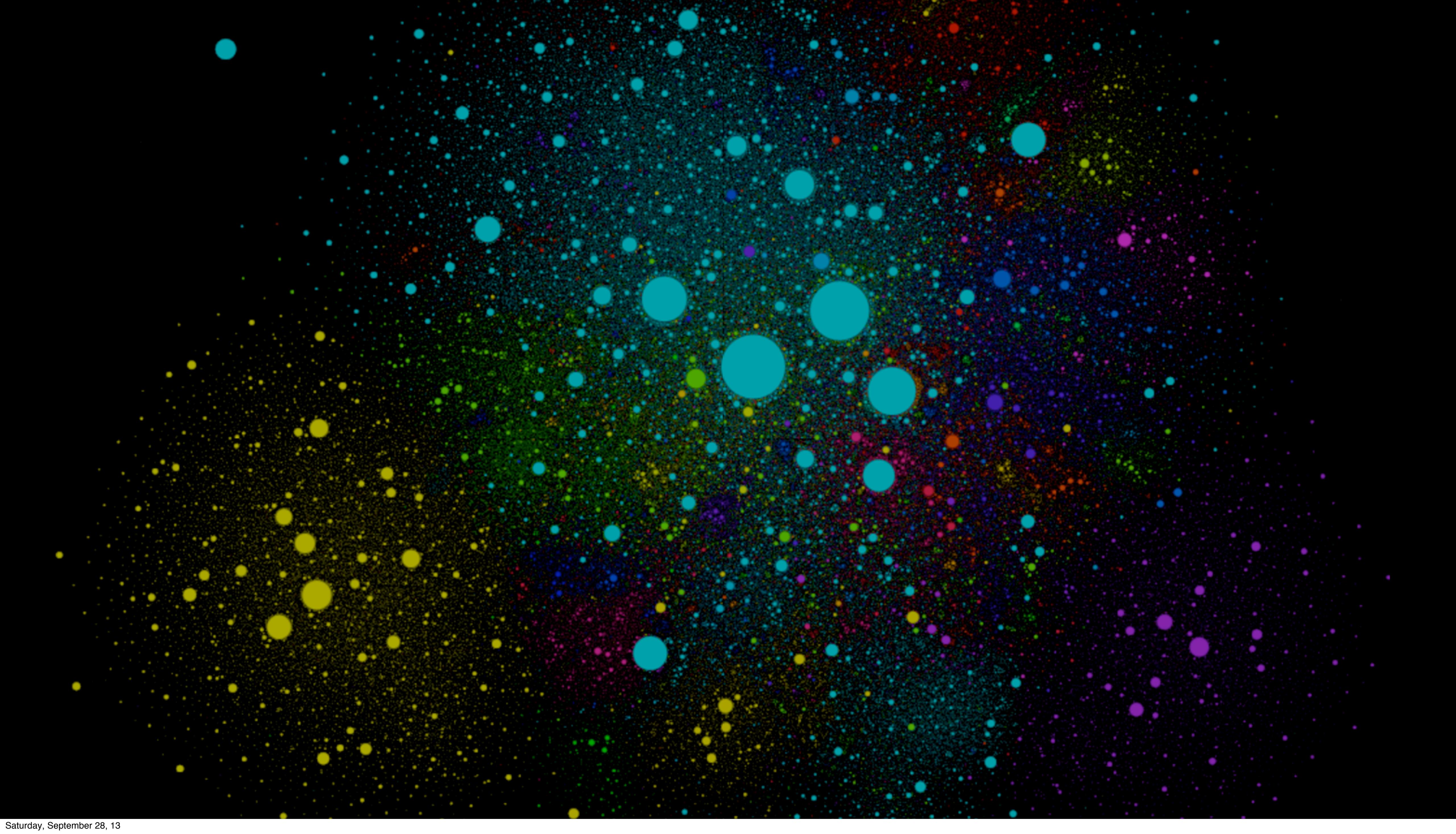
say "yes" to
something crazy

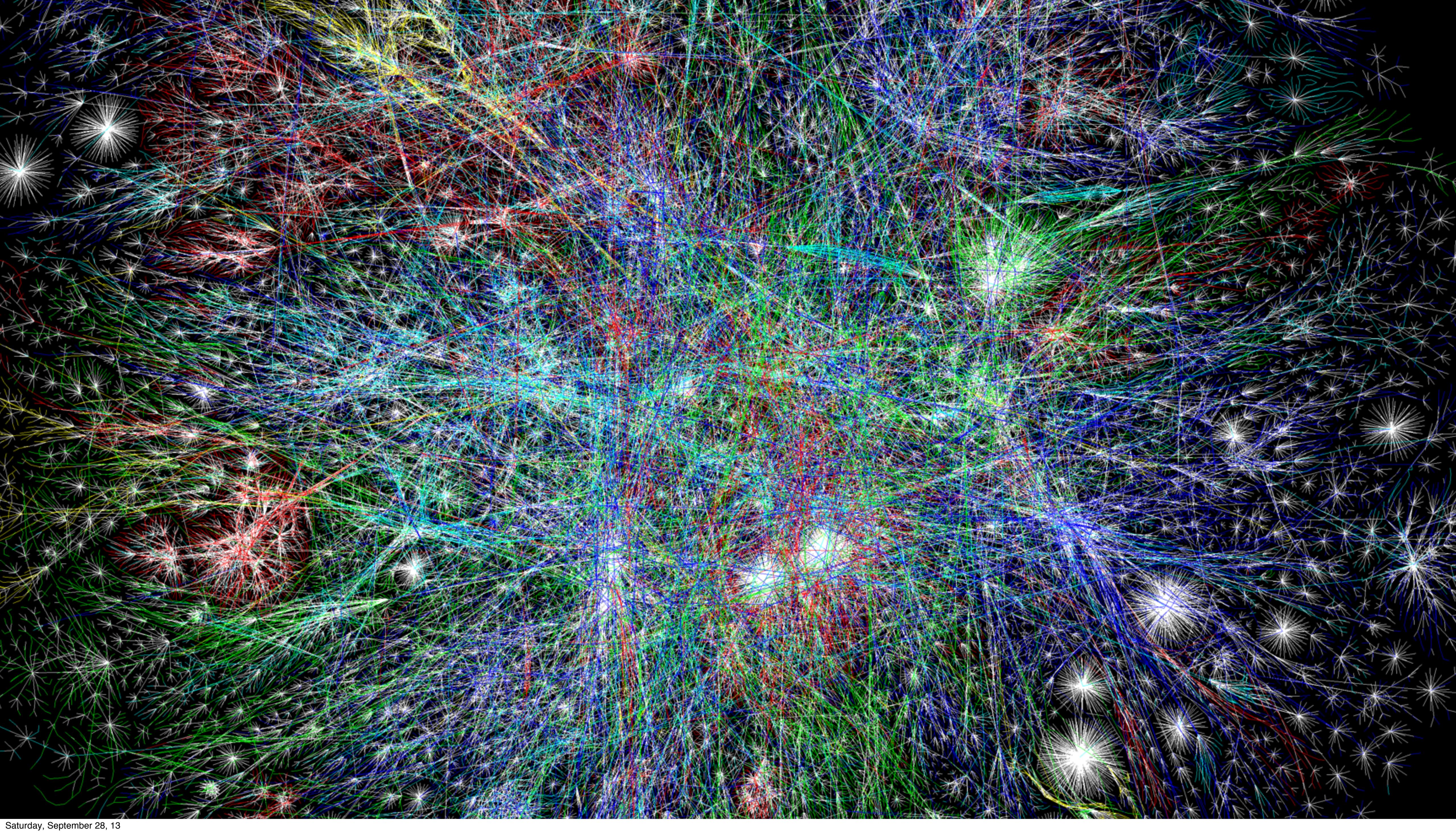


peer1
hosting

say "yes" to
something crazy

step 1:
map the internet



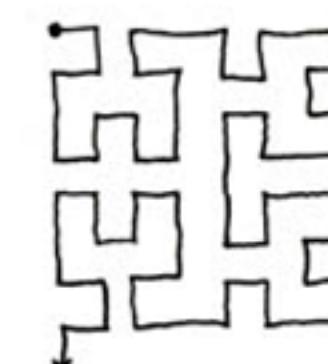


MAP OF THE INTERNET

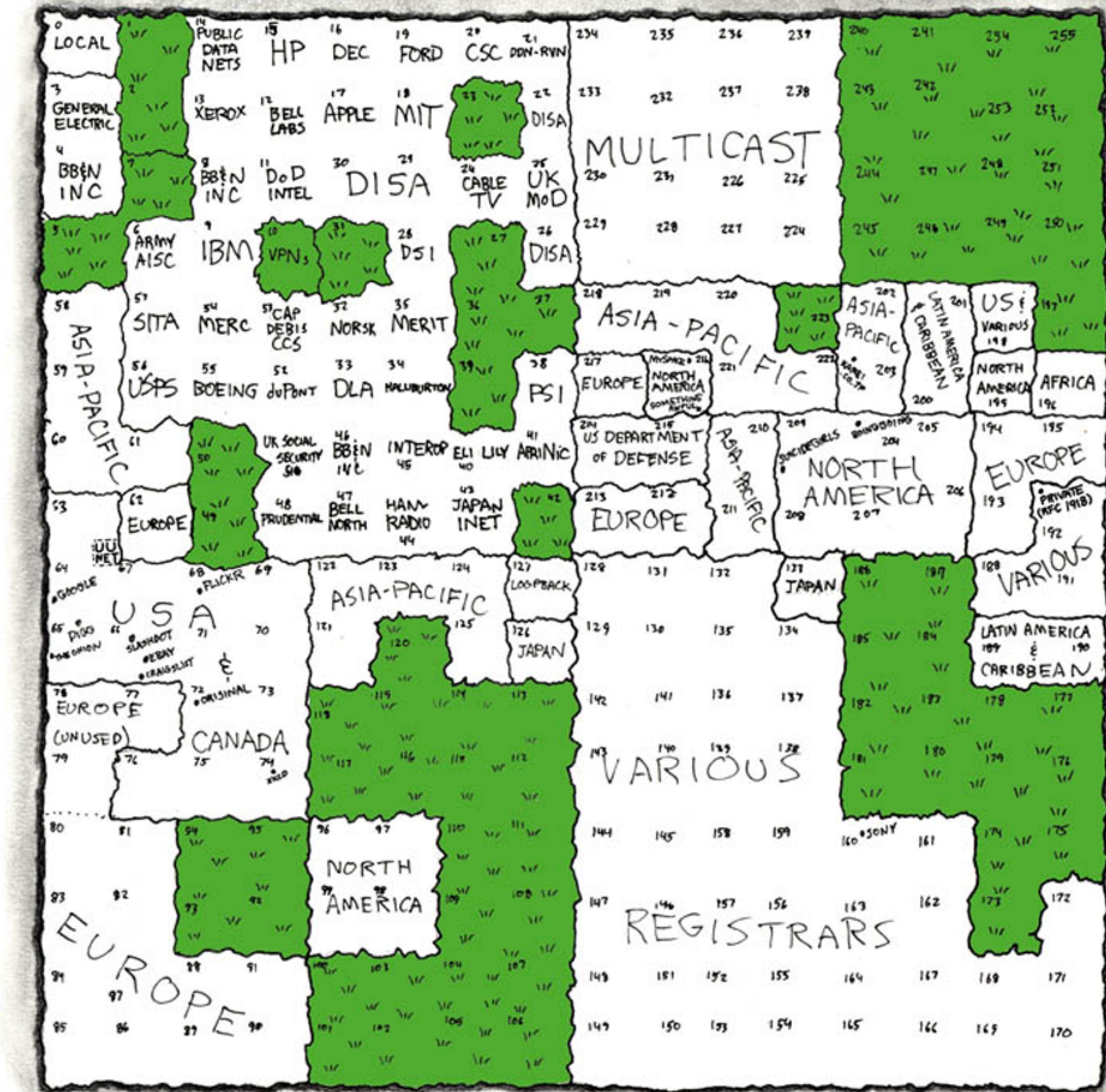
THE IPv4 SPACE, 2006

THIS CHART SHOWS THE IP ADDRESS SPACE ON A PLANE USING A FRACTAL MAPPING WHICH PRESERVES GROUPING--ANY CONSECUTIVE STRING OF IPs WILL TRANSLATE TO A SINGLE COMPACT, CONTIGUOUS REGION ON THE MAP. EACH OF THE 256 NUMBERED BLOCKS REPRESENTS ONE /8 SUBNET (CONTAINING ALL IPs THAT START WITH THAT NUMBER). THE UPPER LEFT SECTION SHOWS THE BLOCKS SOLD DIRECTLY TO CORPORATIONS AND GOVERNMENTS IN THE 1990's BEFORE THE RIRs TOOK OVER ALLOCATION.

0	1	14	15	16	19	→
3	2	13	12	17	18	
4	7	8	11			
5	6	9	10			



= UNALLOCATED BLOCK



html

html | http

nl http tcp

tp tcp dns

cp dns ip

dns ip tla

o tla byob

vob dragons

how does a
packet get from
apple to you?

you

apple

**your
isp**

you

**apple's
isp**

apple

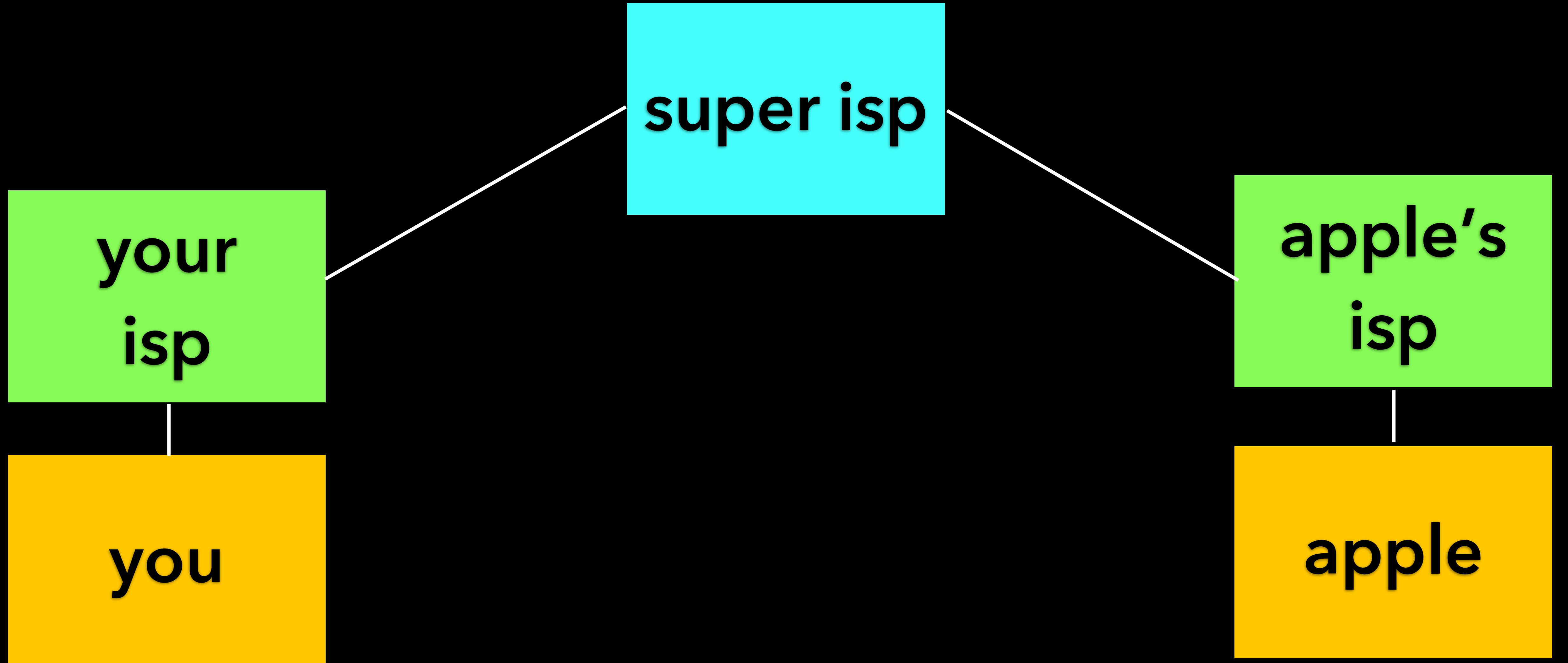
**your
isp**

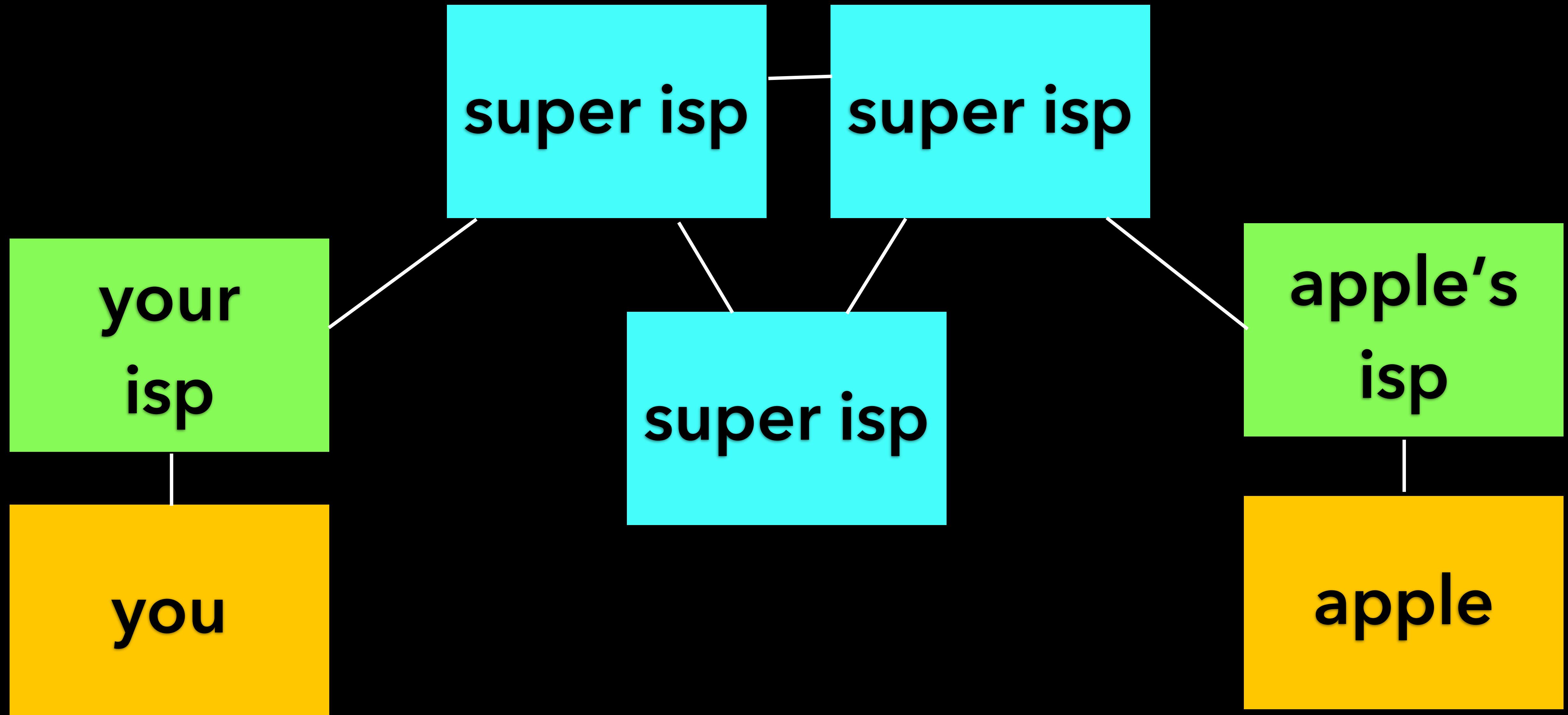
you

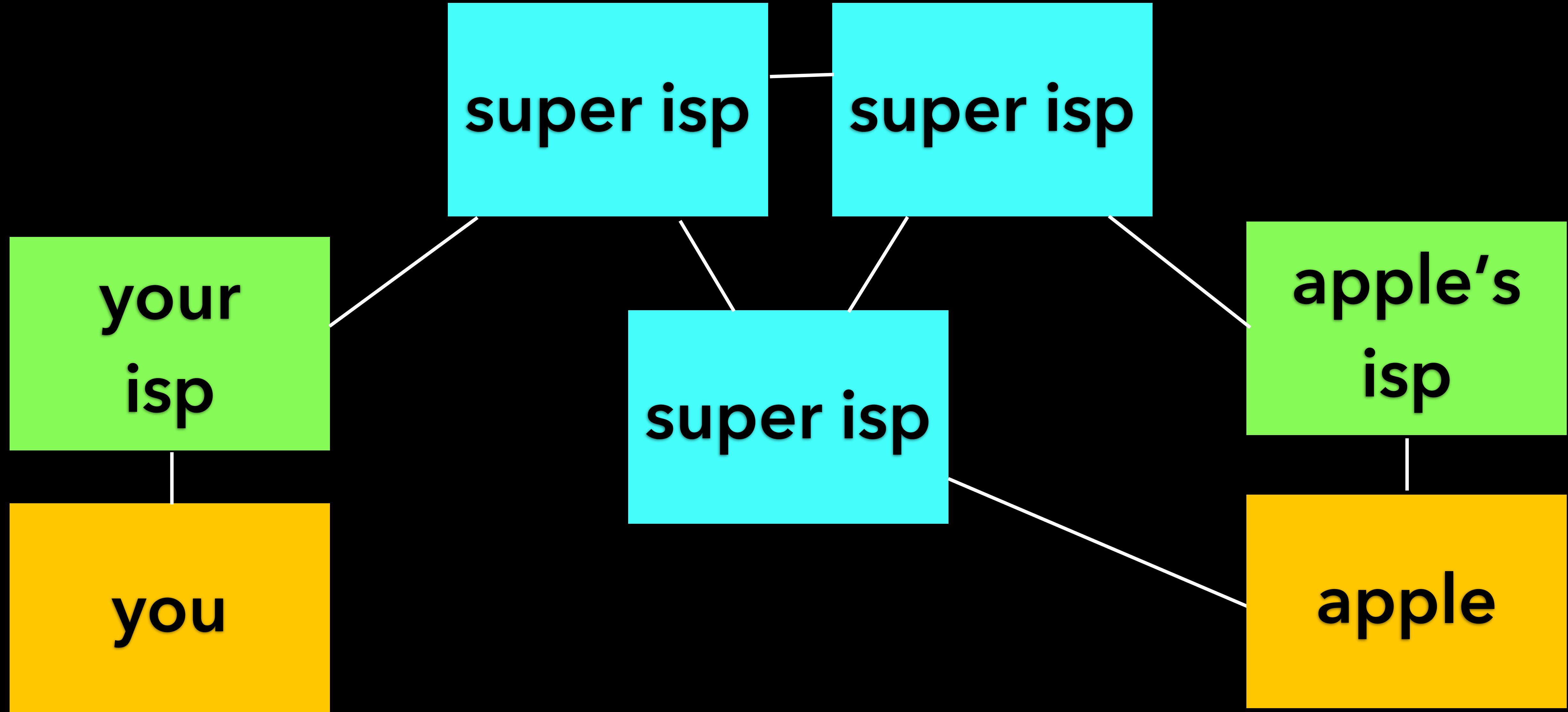
magic!

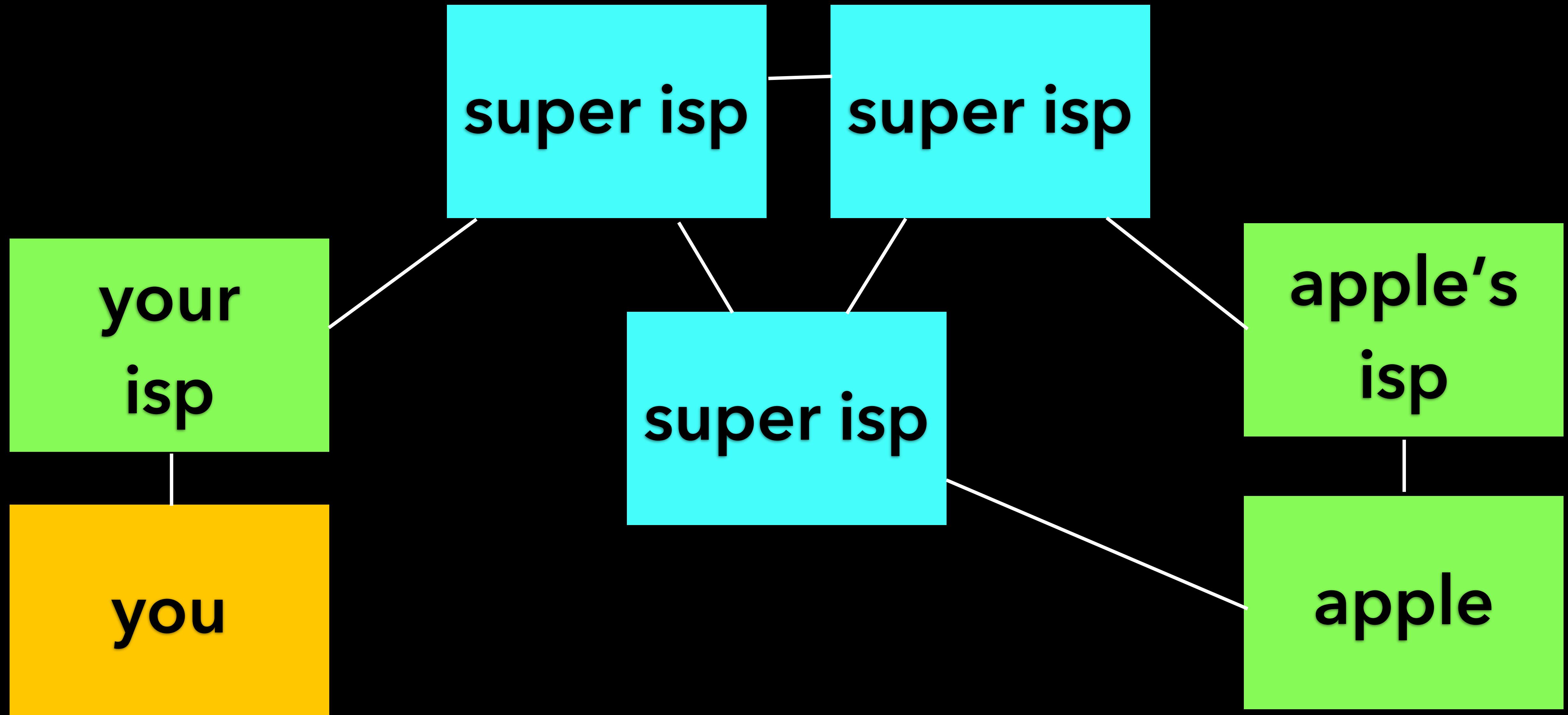
apple's isp

apple

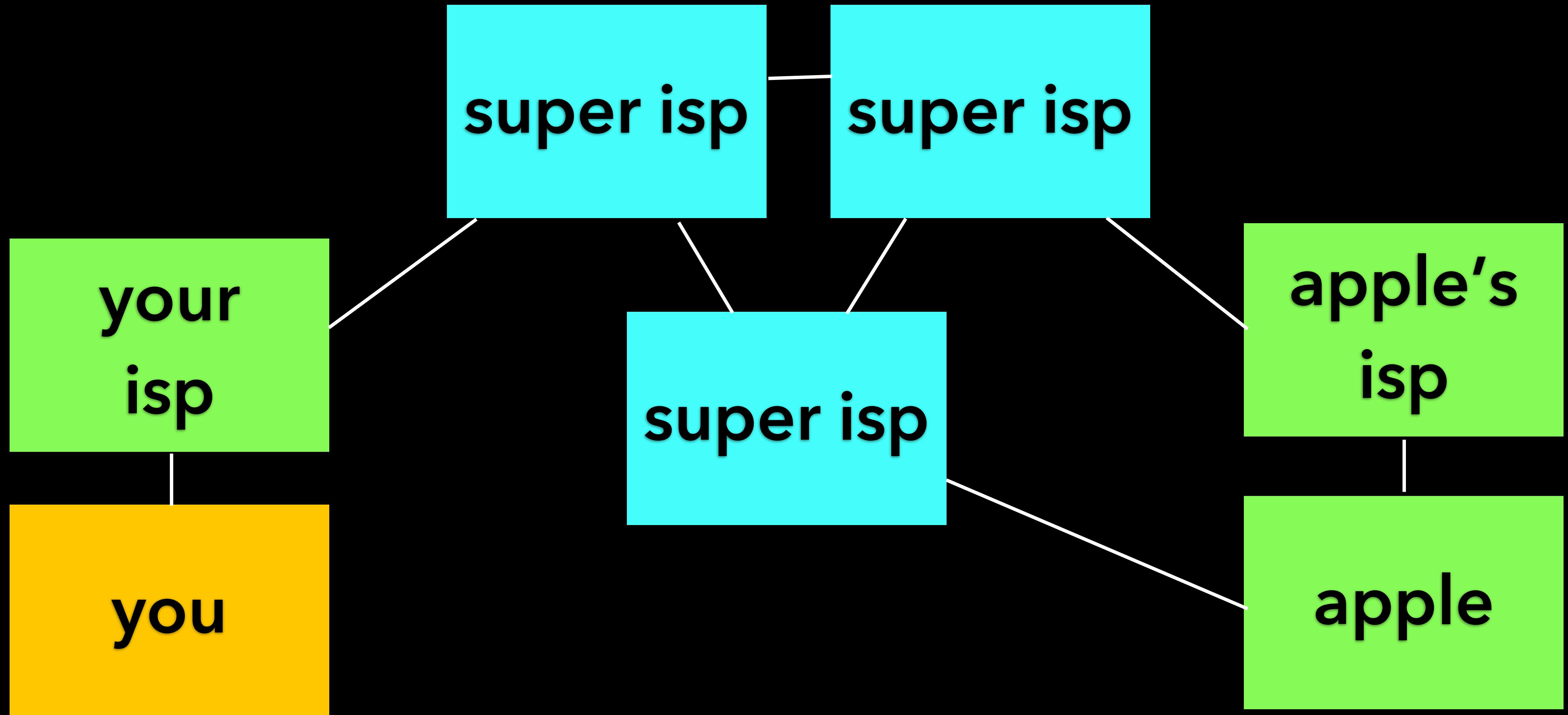


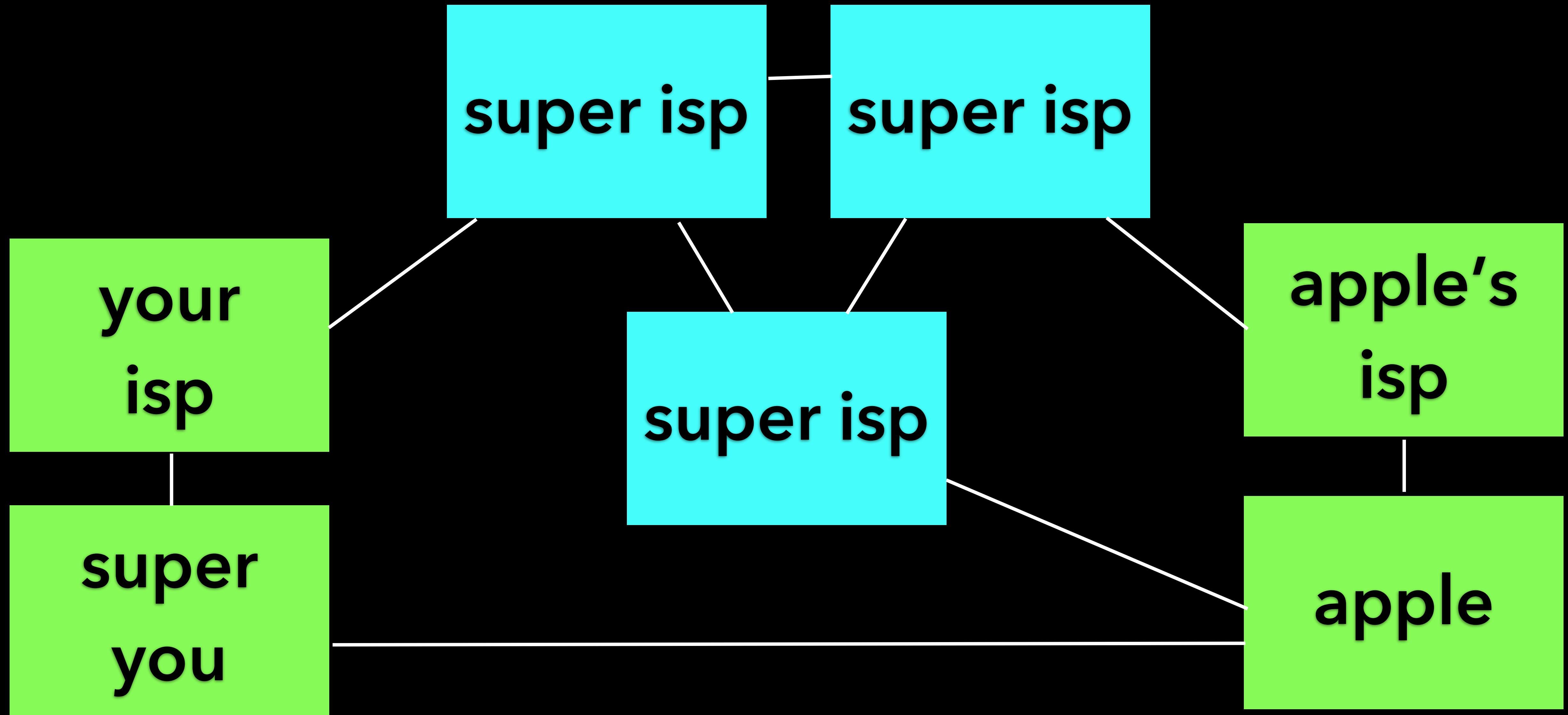








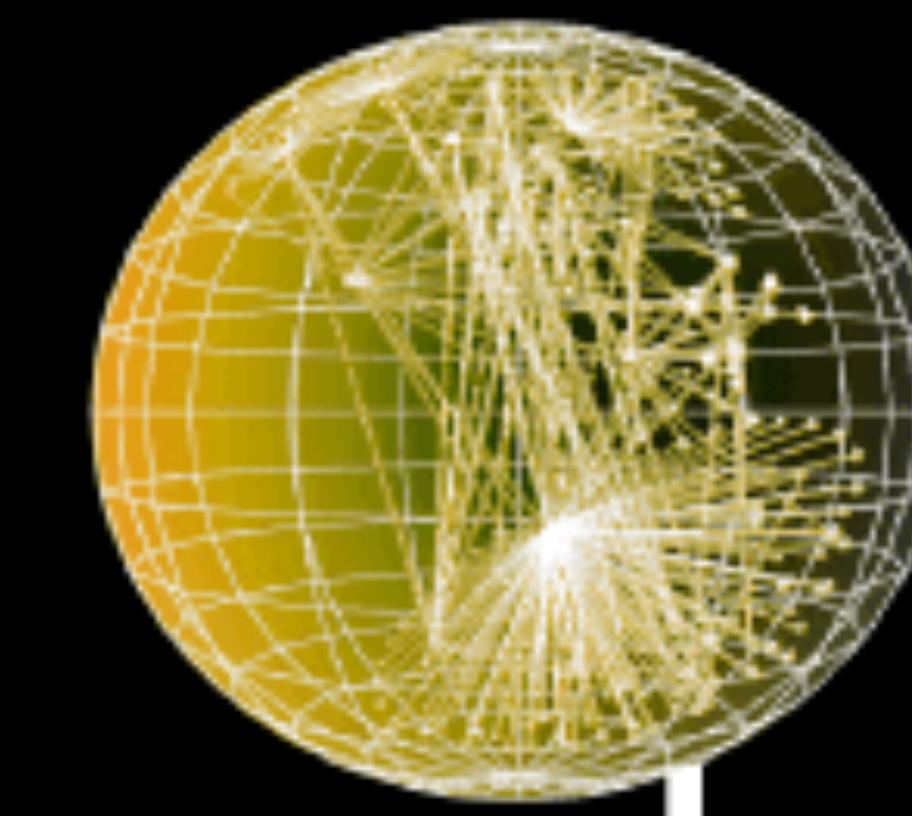




cp dns ip

Ins ip bgp

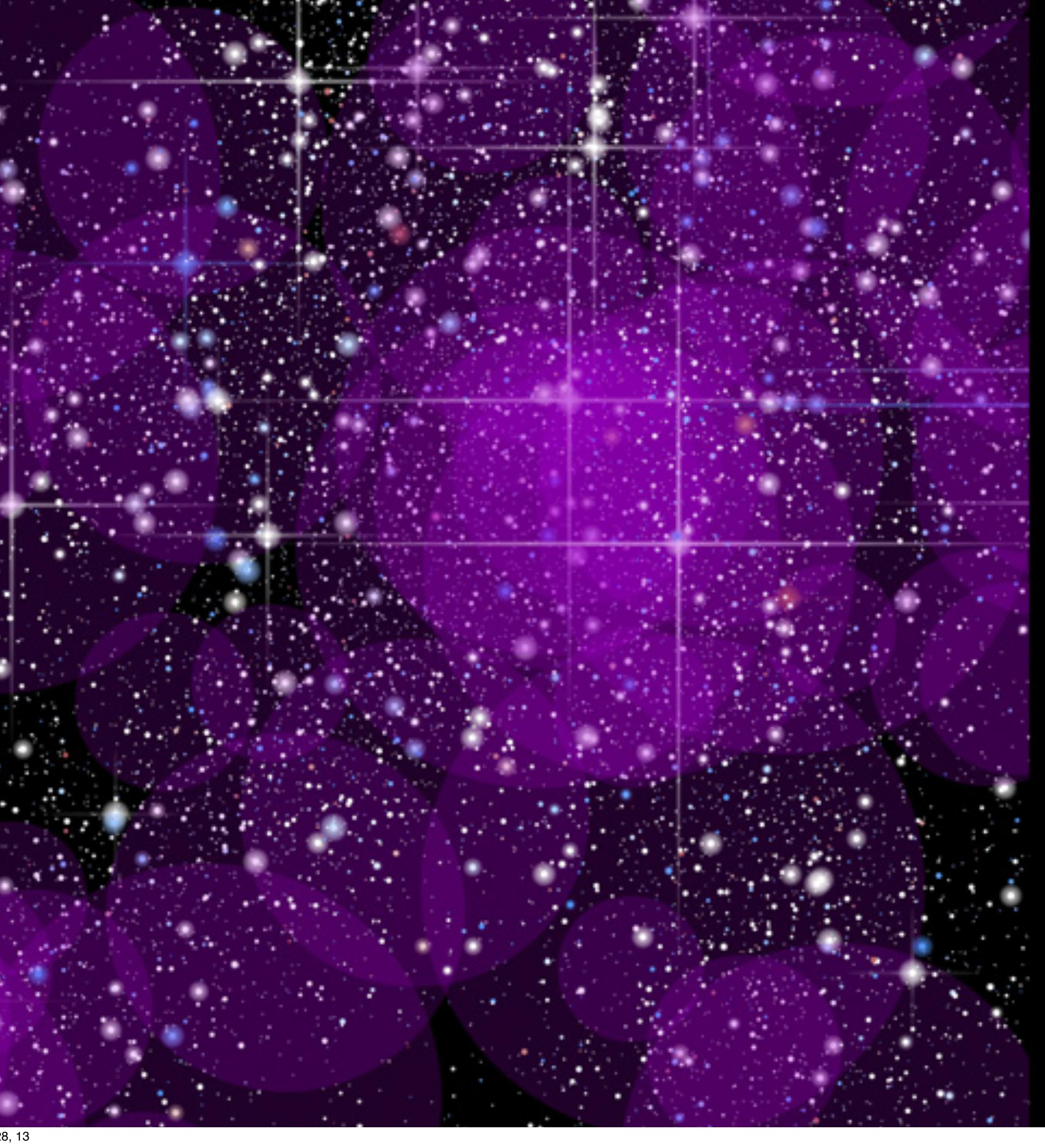




caida

/43268|15620|-1/43268|41599|-1/43268|42277|-1/43268|43087|-1/43268|43177|-1/43268|
43465|-1/43268|43917|-1/43268|44200|2/43268|44531|-1/43268|44895|-1/43268|45036|-1
/43268|47659|-1/43268|49642|-1/43268|49701|-1/43268|49842|-1/43268|57153|-1/43268|
57364|-1/43268|58002|-1/43268|196914|-1/43268|197204|-1/43275|41002|-1/43275|48203
|-1/43275|49144|-1/43275|197515|-1/43284|50734|-1/43293|50399|-1/43310|44006|-1/43
310|197601|-1/43314|51245|-1/43314|56776|-1/43320|52171|-1/43327|3287|-1/43333|418
60|-1/43333|47709|2/43333|50840|2/43343|21341|-1/43343|43395|-1/43343|48555|-1/433
43|49844|-1/43343|51001|-1/43343|198178|-1/43350|4743|-1/43350|30880|-1/43350|3916
4|-1/43365|47130|2/43366|24957|-1/43366|29590|-1/43366|31022|-1/43366|41037|-1/433
73|50104|2/43376|8423|-1/43376|16292|-1/43376|39474|-1/43376|41011|-1/43376|43890|
0/43376|44184|-1/43376|47619|-1/43376|48067|0/43376|48161|0/43376|48931|-1/43376|4
9401|0/43376|49909|0/43376|50244|0/43376|50515|0/43376|56430|0/43391|3188|-1/43391
|42055|-1/43391|49467|-1/43391|57844|-1/43395|44808|2/43395|51001|-1/43395|56552|2
/43404|29632|-1/43404|34687|-1/43404|44893|-1/43404|44999|-1/43404|51410|-1/43418|
39307|-1/43418|39322|-1/43418|50723|-1/43418|57703|-1/43435|44783|2/43443|39226|-1
/43443|47929|-1/43443|50839|-1/43443|50939|-1/43457|43563|-1/43465|57364|-1/43465|
58002|0/43478|47905|-1/43478|197768|-1/43517|49558|-1/43517|50750|-1/43531|8548|-1
/43531|25178|-1/43531|32402|-1/43531|196720|-1/43537|12550|-1/43538|13216|-1/43541
|9053|-1/43541|48661|-1/43541|51025|-1/43541|52176|-1/43541|196943|-1/43542|44104|
2/43542|48091|2/43542|57288|-1/43544|41022|-1/43545|21177|-1/43545|28782|-1/43559|
42190|-1/43561|8431|-1/43561|8717|-1/43561|12795|-1/43561|12848|-1/43561|12962|-1/
43561|28820|-1/43561|31014|-1/43561|34055|-1/43561|35464|-1/43561|42100|-1/43561|4
2410|-1/43561|44520|-1/43561|44564|-1/43561|47928|-1/43561|49491|0/43561|50431|-1/





SOUNDPROOF PICTURES presents

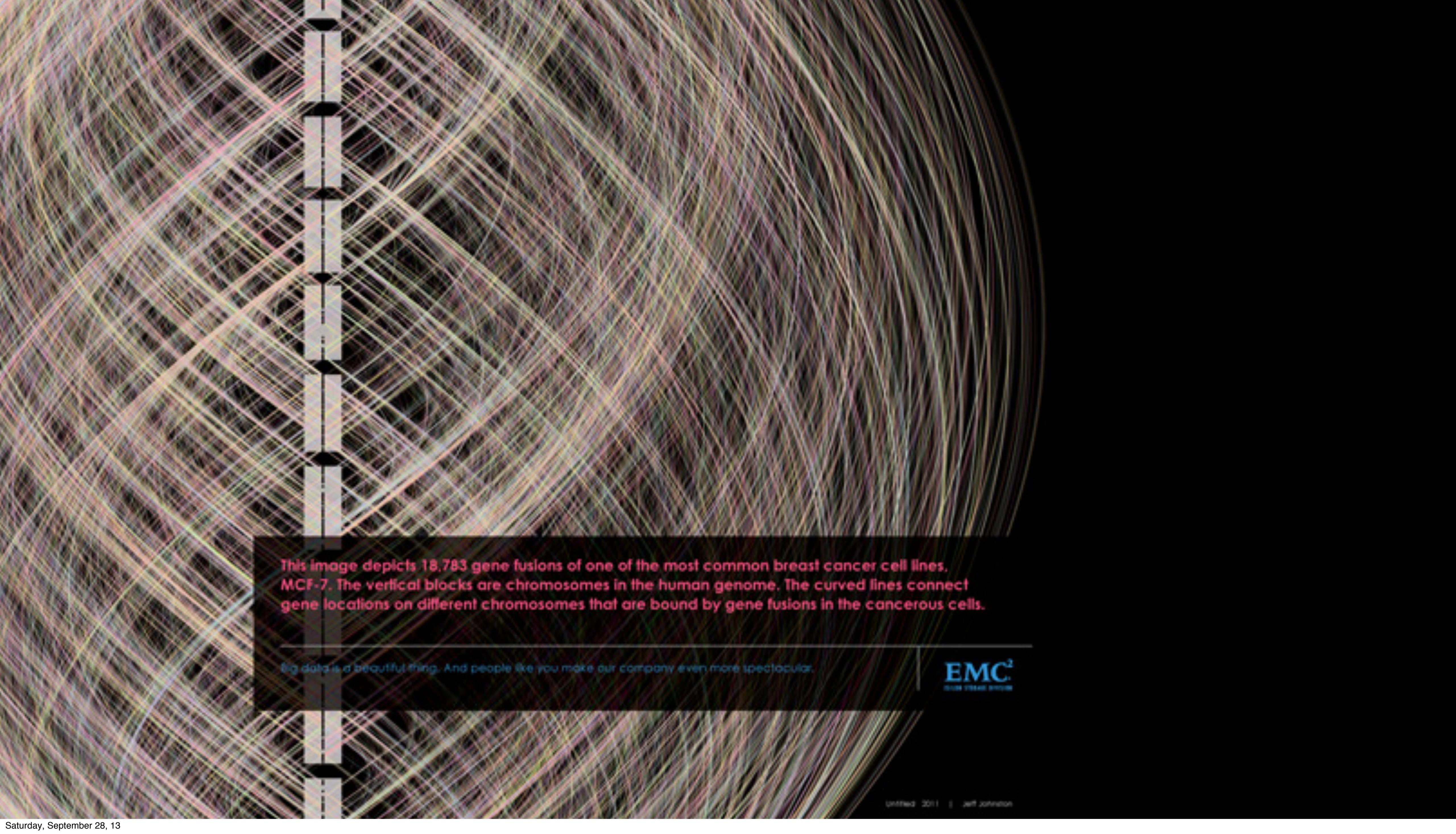
SPACE-ISH! JOURNEY TO THE NTH DIMENSION

starring

EVAN JONES CHRIS SINGER JEFF JOHNSTON

K-MAN TERESA JOHNSON MIKE LEE

JOHAN "YO" THORNTON LIVE PA



This image depicts 18,783 gene fusions of one of the most common breast cancer cell lines, MCF-7. The vertical blocks are chromosomes in the human genome. The curved lines connect gene locations on different chromosomes that are bound by gene fusions in the cancerous cells.

Big data is a beautiful thing. And people like you make our company even more spectacular.



step 2:
math the math

The Internet

Topology of Autonomous Systems, 2011.01.02

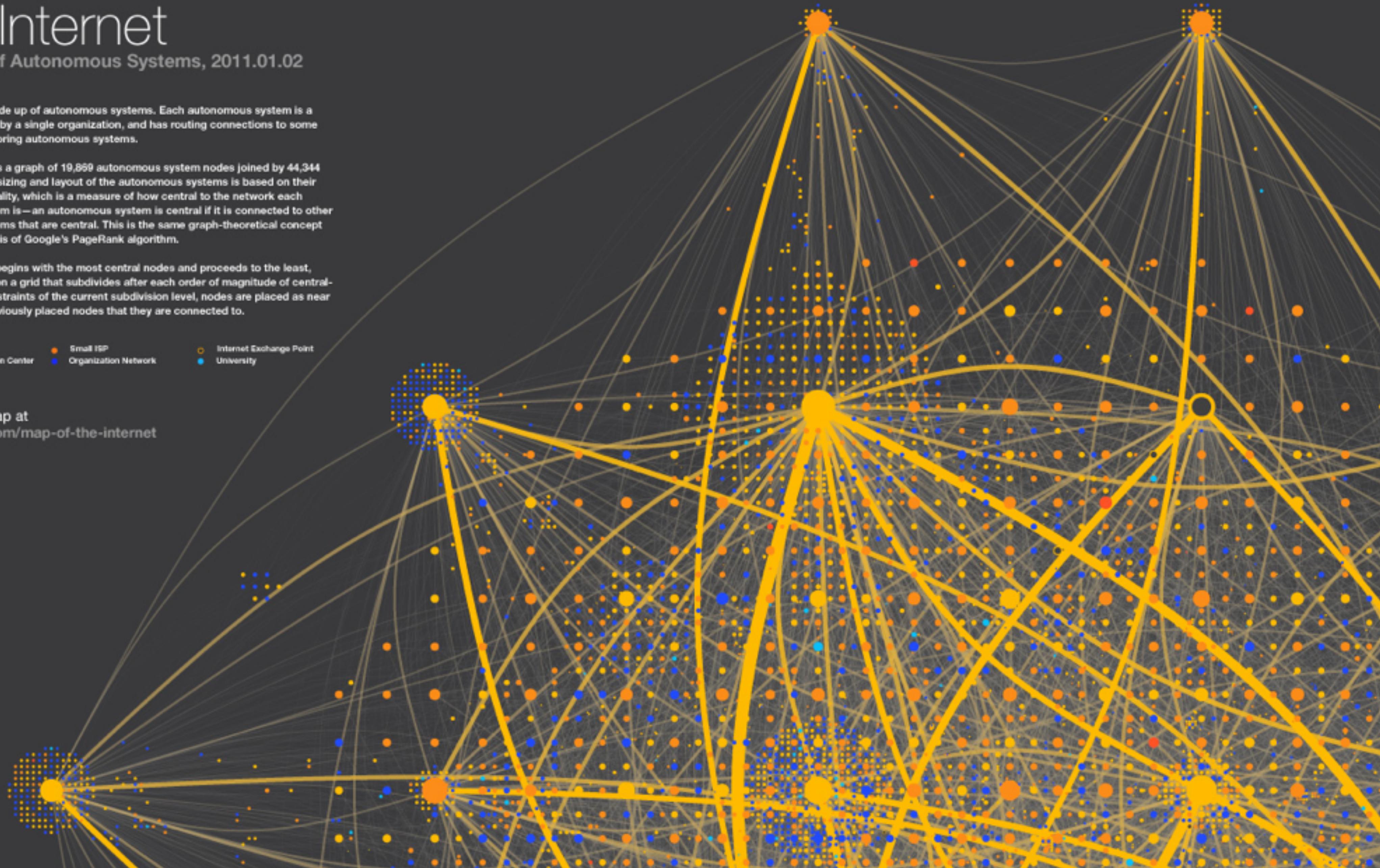
The Internet is made up of autonomous systems. Each autonomous system is a network operated by a single organization, and has routing connections to some number of neighboring autonomous systems.

This image depicts a graph of 19,869 autonomous system nodes joined by 44,344 connections. The sizing and layout of the autonomous systems is based on their eigenvector centrality, which is a measure of how central to the network each autonomous system is – an autonomous system is central if it is connected to other autonomous systems that are central. This is the same graph-theoretical concept that forms the basis of Google's PageRank algorithm.

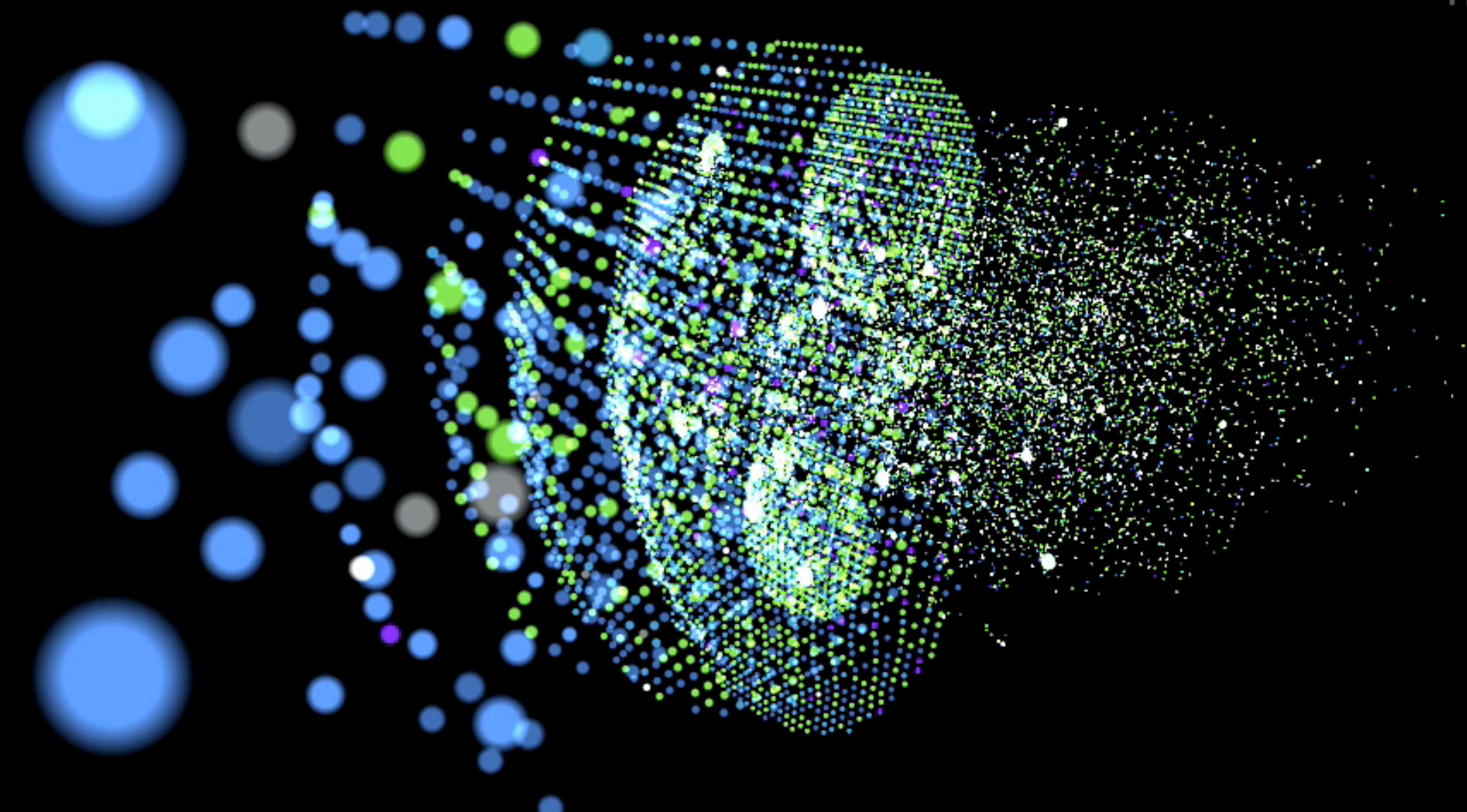
The graph layout begins with the most central nodes and proceeds to the least, positioning them on a grid that subdivides after each order of magnitude of centrality. Within the constraints of the current subdivision level, nodes are placed as near as possible to previously placed nodes that they are connected to.

- Large ISP
- Small ISP
- Network Information Center
- Organization Network
- Internet Exchange Point
- University

See the full map at
www.peer1.com/map-of-the-internet



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}
```



MOAR!



step 3:
predict the future





say "yes" to
something crazy

objective-C

objective-c++

C++





Package name

com.peer1.internetmap

Version code

7

[Show details](#)

Version name

1.1

Supported devices

2305

[See supported devices](#)

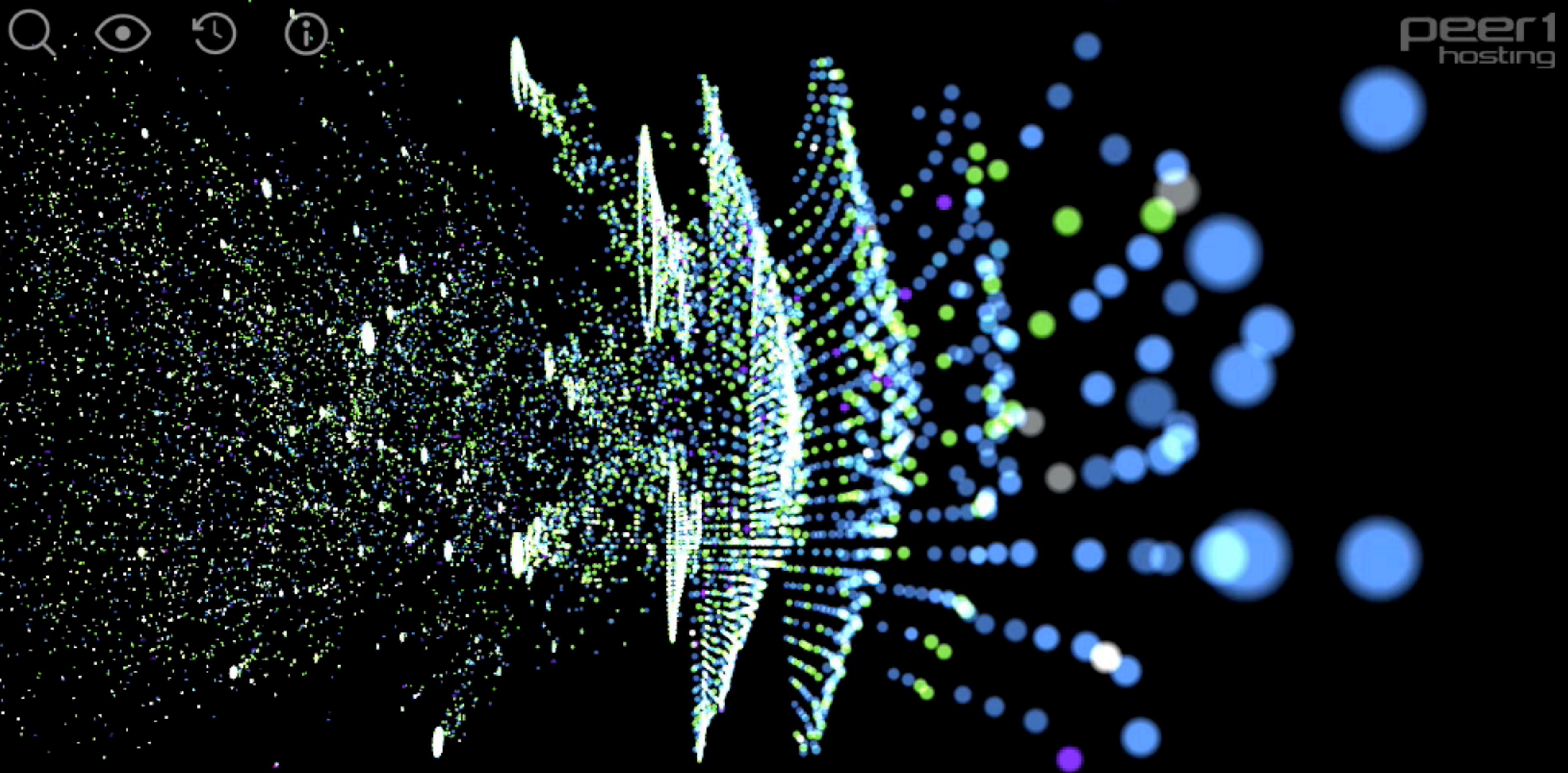
Excluded devices

1

[Manage excluded devices](#)

a couple additions...

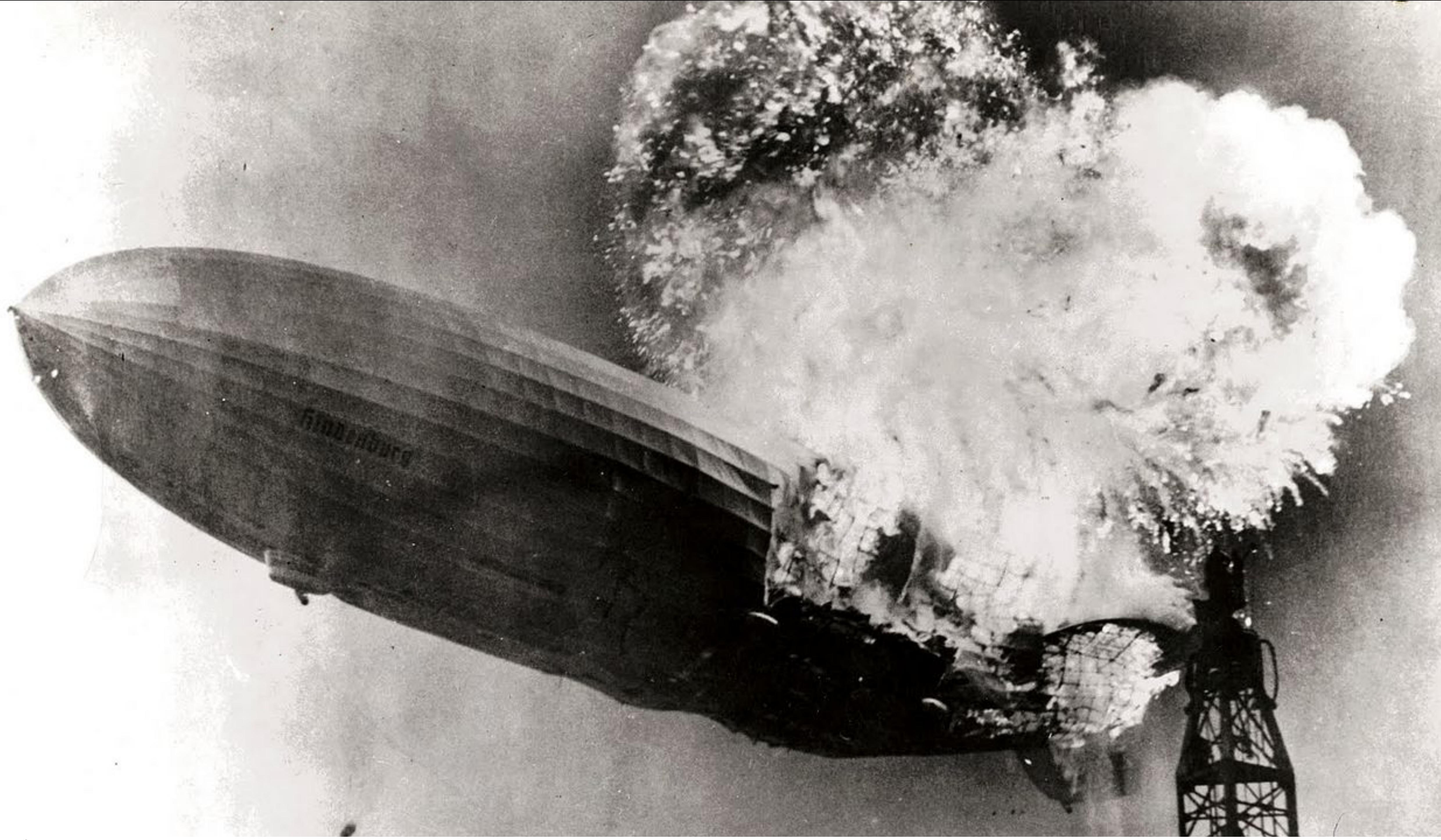
- Search
- You Are Here
- Traceroute
- Timeline
- Tutorial and help
- Historical facts
- Domain lookup
- Globe view
- iPhone version
- A pony



step 5:

get famous







it worked!

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DVICE



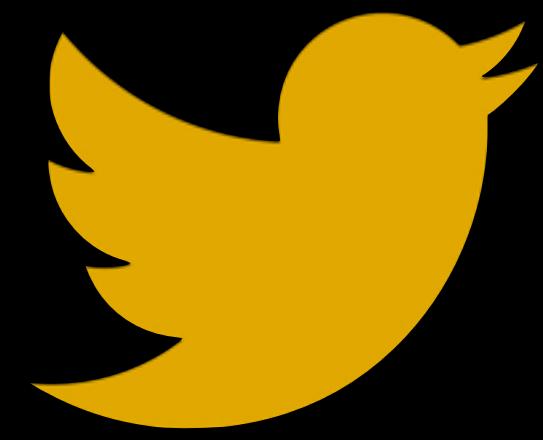
designboom®

COMPLEX

100,000
downloads

先
覺

say “yes” to
something crazy



apike

allen@steamclock.com

