how to reach "Critical Mass" at an Internet Exchange

Job Witteman
job.witteman@ams-ix.net

Very short introduction

- Founded in 1997
- Non-profit, neutral independent
- 390 AS numbers connected
- 656 (365 10 Gb) customer ports
- 8 locations (all in Amsterdam)
- 1.1 Tb/sec peak traffic (5 min average)
- 27 employees
- 10 M+ euro turnover

What is critical mass?

- Critical mass is the 'tipping point' from where on IX will see 'autonomic' growth because connecting networks will start saving on bandwidth costs

- Financial break-even (for the IX) should be reached before this point

- Rough estimate: 15 connected parties who are willing to peer (depending)

What is needed before you start

1. Potential participants

   – Market research !

2. A trusted operator

   – Stay out of your customers' business

   – No 'stakeholder'

3. A suitable model

4. Power, cooling, space (be picky)

5. A license ?

Basic ingredients: Trust (10%)

- (Carrier-) neutrality

- Simplicity

- Open model

- (Fiber) accessibility

- Reliable hardware / engineering

- Without proper foundation it will be a waste of energy

Critical mass (90%)

- Eyeballs need content
- Content needs eyeballs
- Carriers need customers (either content or eyeballs)
- The incumbent* is afraid of you

- A 'balanced' IX can answer most needs, so aim at the right 'mix' of participants

The role of the incumbent

- Often the incumbent has an (ultra-) high market share

- Peering at an IX conflicts with their sales

- Cost savings are not their #1 priority

- Sales targets seem more important than long term earnings

- You need strong arguments to change their views (and they differ per situation), but you (probably) need them to participate

Peering game for the IX (1)

- Define a 'charter' for your exchange
  - Depending on background
    - Academic, commercial, non-profit
  - Depending on ambition
    - Local, national, regional, global

- Consult all available sources for help
  - Euro-ix
  - Successful exchanges (just ask, really !)

Peering game for the IX (2)

- Act professional
- Answer the phone, e-mail
- Offer support (where appropriate)
- Understand your members' business and needs
- Understand your own business
- Focus and stick to your charter

Peering game for the IX (3)

- Use your web-site
  - Keep it updated
  - Be as informative as you can
  - Be honest and open about your failures

- Build a useful user portal
  - Show sFlow traffic stats (per peer)
  - Let the user update his own data

Peering game for the IX (4)

- Avoid complexity
  - In contracts
  - In policies
  - In charging models
  - In billing
    (but don't forget to collect the money)

Peering game for the IX (5)

- Stress the advantages of Autonomy
    - Better buying power with upstream providers
    - Optimize network utilization + latency
    - Create cost effective redundancy
    - Marketing value

Peering game for the IX (6)

- Introduce members to each other
- Create mailing lists (and use them)
- Build a community
  - Invite interesting speakers at your meetings
  - Eat, drink, party so your members and prospects get to know each other
  - Make your members your ambassador

Success !