

# *ARIN & CAIDA*

## *IPv6 Survey Results*

kc claffy  
CAIDA

ARIN XXI meeting, April 2008

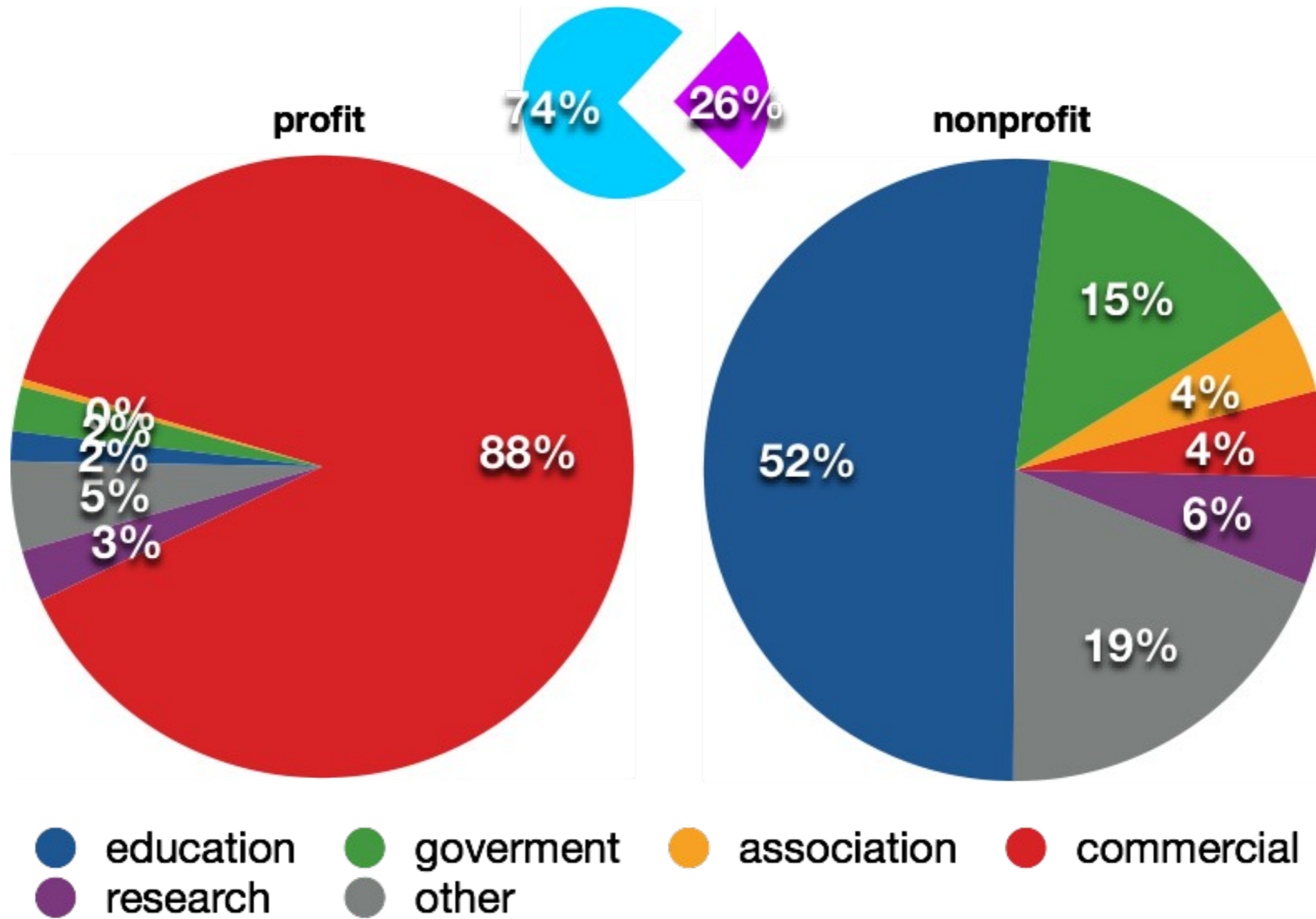
# Outline

- Survey
  - overview
  - dates and goals
  - respondents
- Results
  - Deployment
  - Deployment breakdown
  - Biggest hurdles to:
    - IPv6 deployment
    - IPv6 allocation

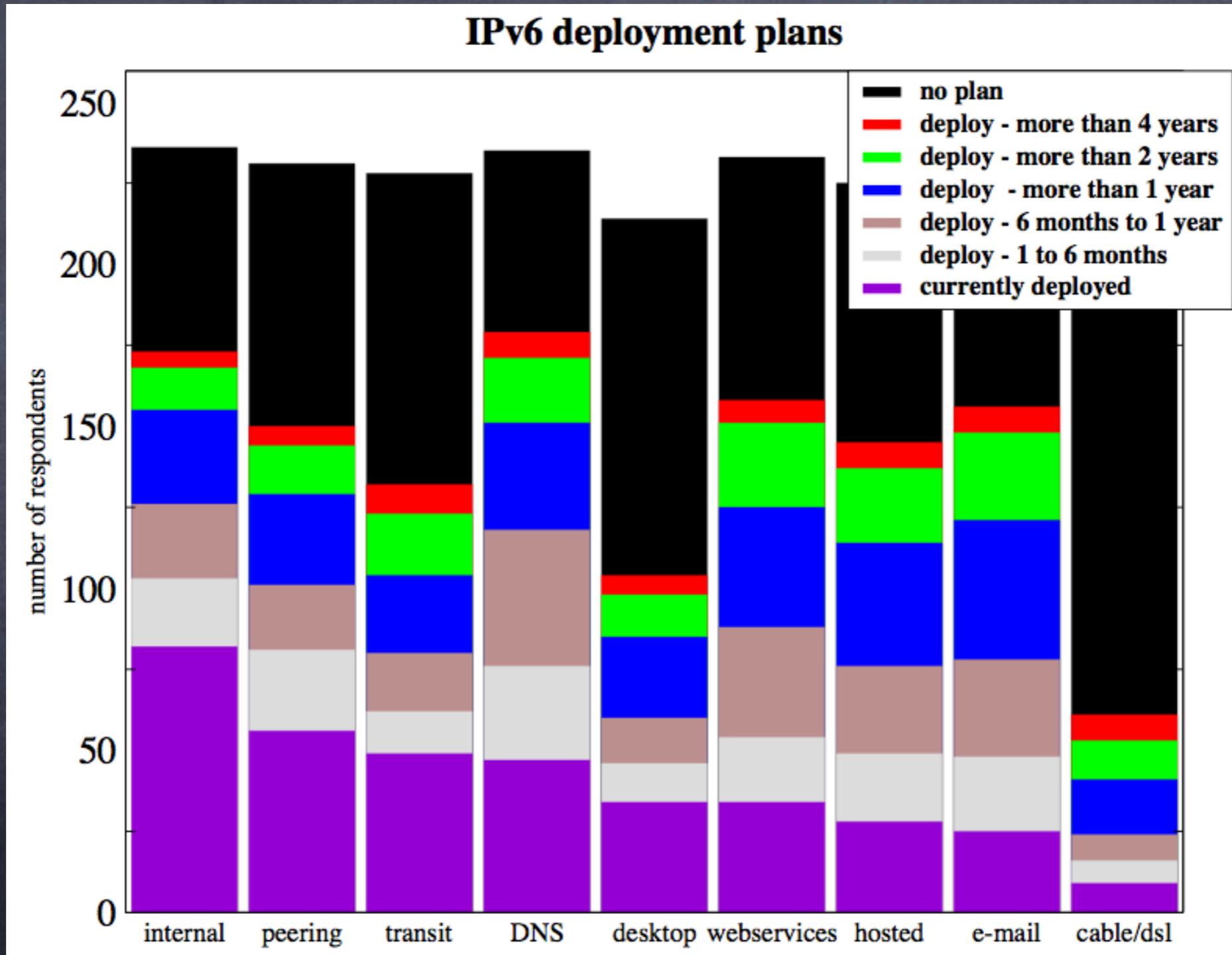
# ARIN and CAIDA IPv6 Survey

- When:
  - We conducted the survey between March 10 and March 24 2008.
- Goals:
  - To capture IPv6 penetration data in the ARIN Region
    - (Canada, portions of the Caribbean, and the US)
    - to capture community input (inc. non members)

# Who Responded (cont.)



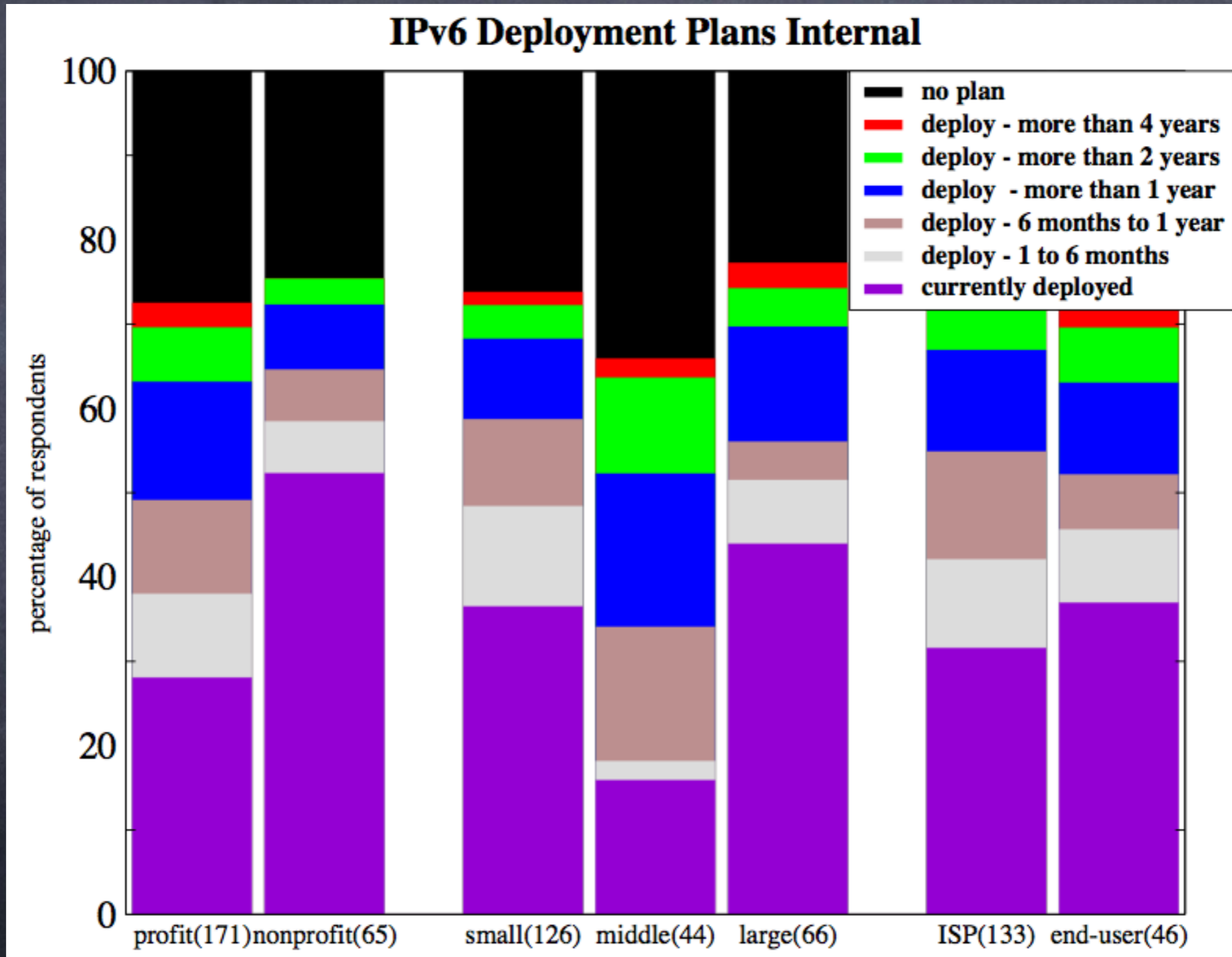
# IPv6 Deployment Plans



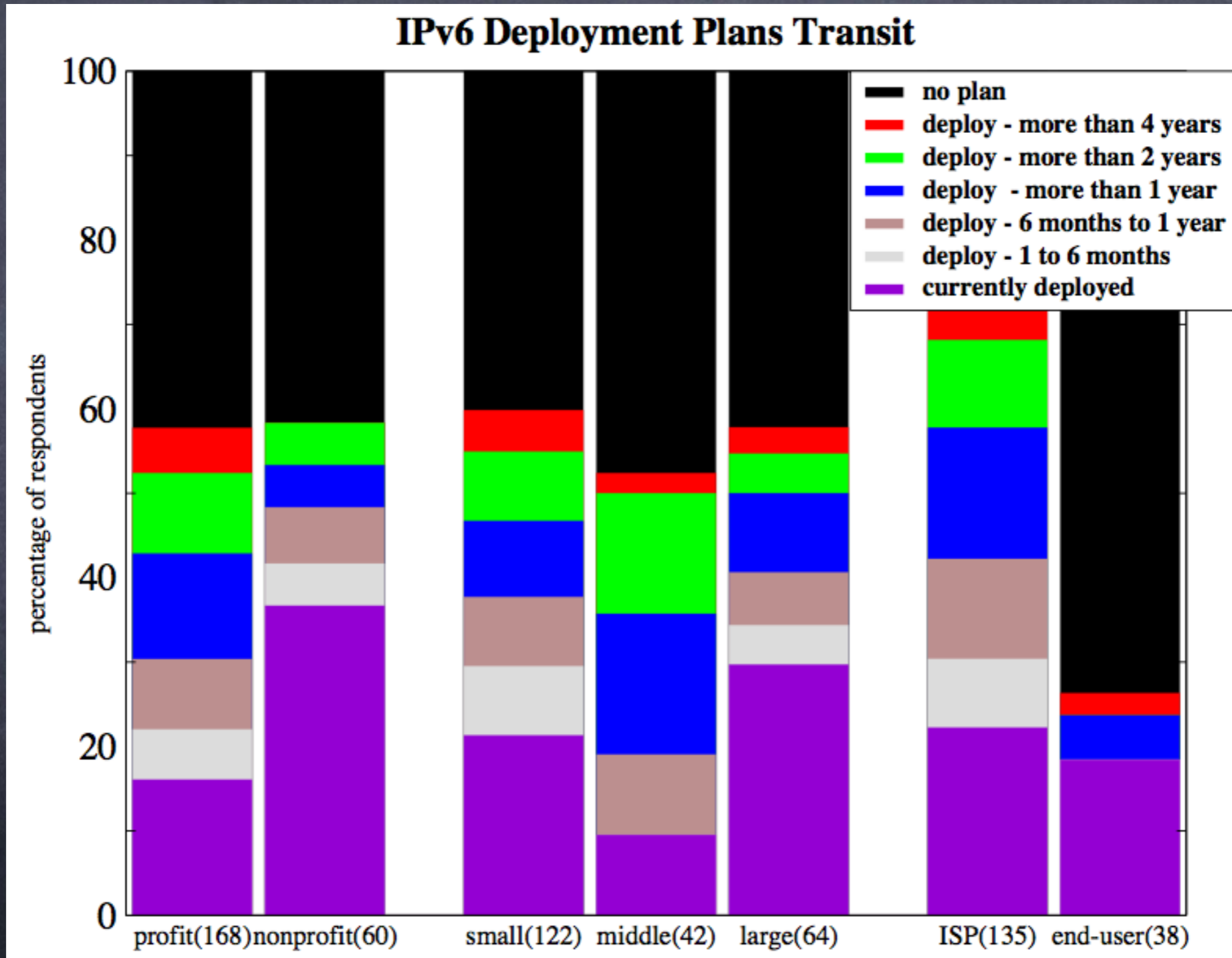
# Survey Categories

- Profit vs Non-profit
- Company size
  - small < 100
  - medium 101 - 1000
  - large 1001 - 10,000
  - x-large > 10,000
- ISP vs End-user

# Internal IPv6 Deployment

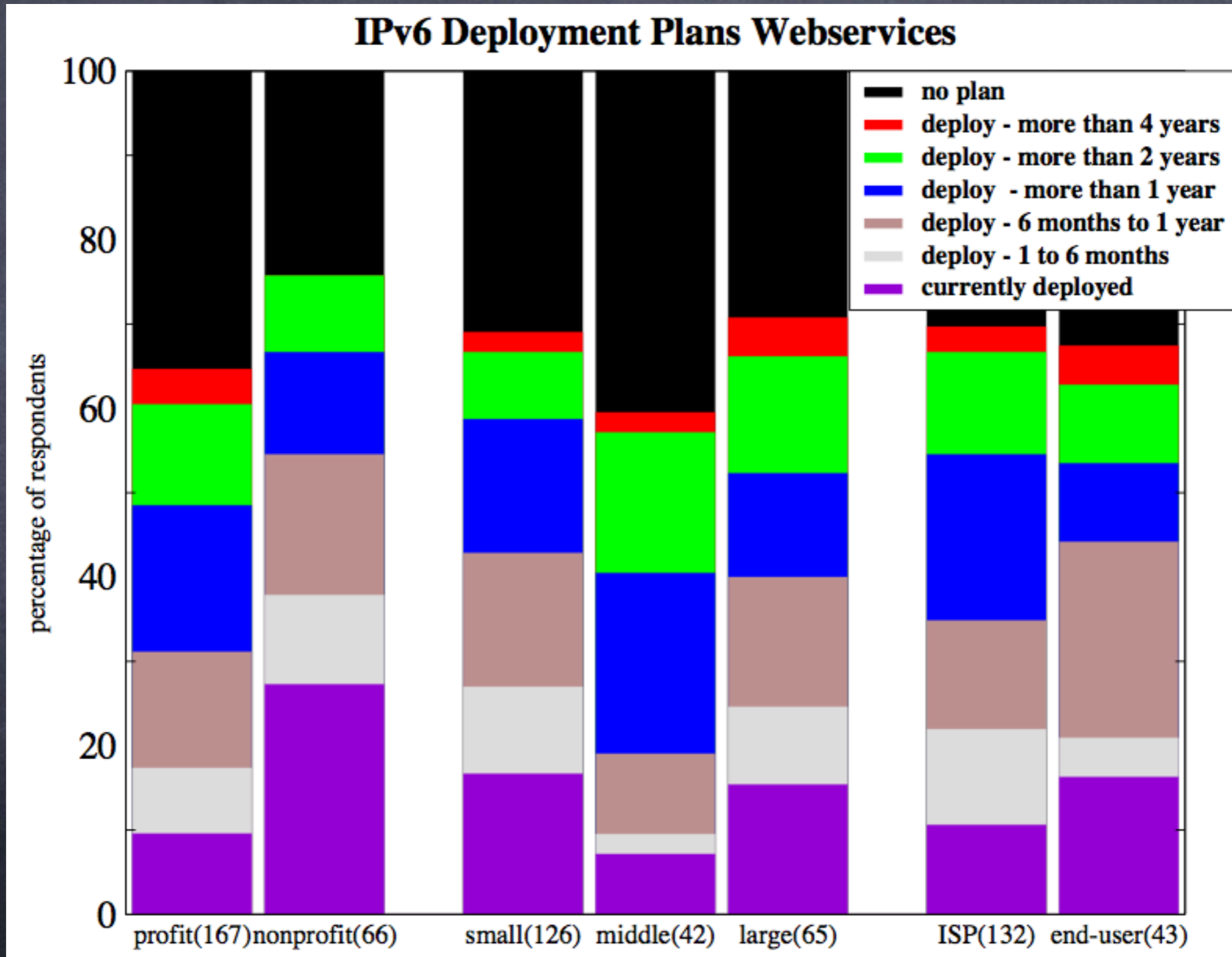


# Transit IPv6 Deployment

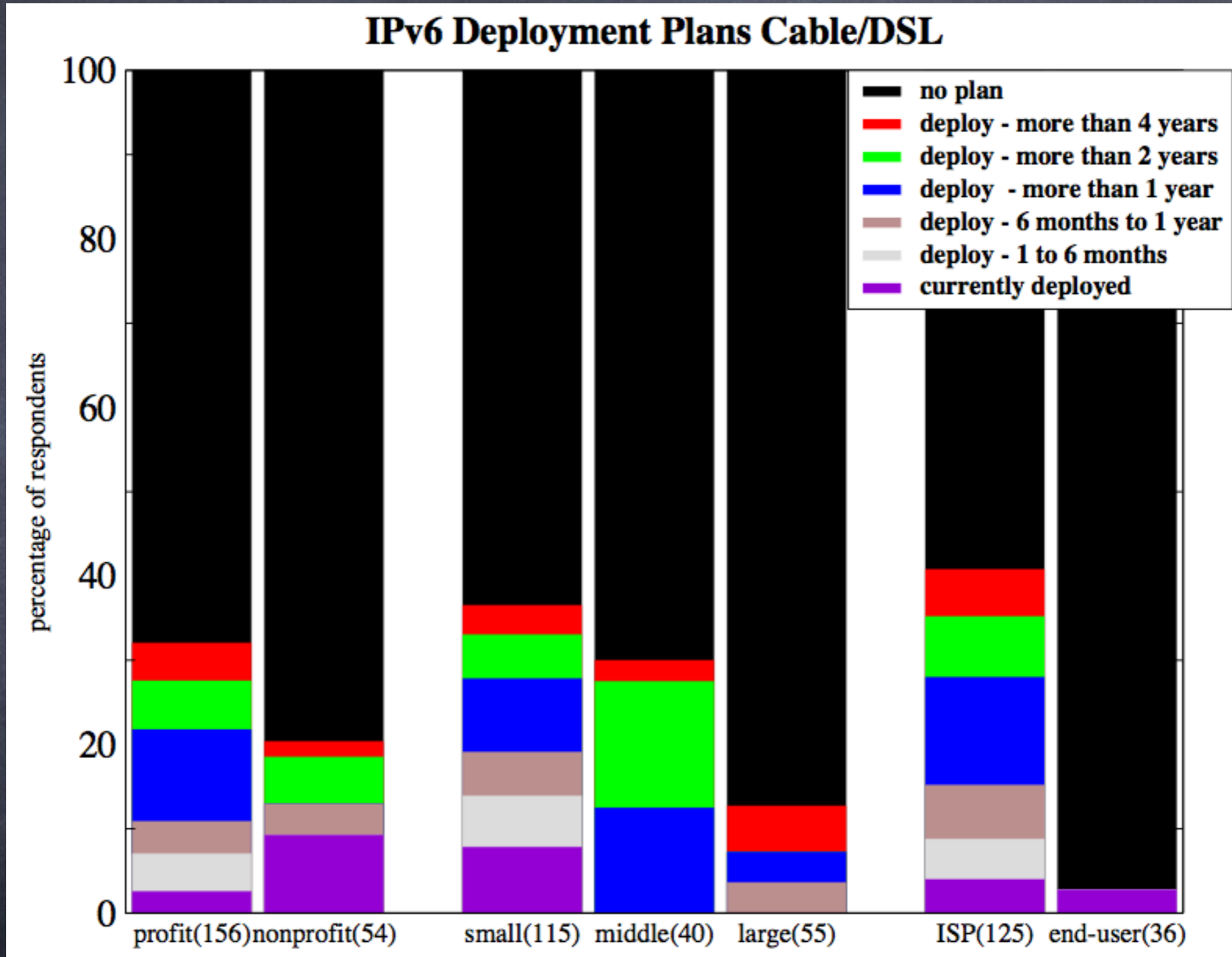




# Web IPv6 Deployment



# DSL/Cable IPv6 Deployment



# Biggest Hurdles to IPv6 Deployment



Biggest hurdles	# of responses	% of responses
Cost, time, business case	79	36.41%
Vendor support, back-office	51	23.50%
Knowledge, education	40	18.43%
User demand	39	17.97%
Upstream transit	38	17.51%
Dual-stack Interoperability	31	14.29%
Multihoming	9	4.15%
Allocation Policy	5	2.30%
Performance	4	1.84%

# Biggest Hurdles to IPv6 Allocation

	Response Percent	Response Count
Have not gotten around to it yet	45.2%	103
Our infrastructure does not support it	32.5%	74
Do not see the need	30.7%	70
ISP does not support v6	22.4%	51
Cannot afford the expense	16.7%	38
Cannot meet the requirements	8.3%	19
Other	20.2%	46
		228

# Quotable Quotes

“We have actually seen a decline in the perceived need for IPv6 over the last several years. Very few have bothered with the implementation. Those like us who previously had started to contemplate plans have basically shelved them because, there isn't a push for it (from users or our upstream ISPs); there isn't a demand for its services over IPv4; other technologies seems to have diminished the need (e.g. NAT, virtual hosting); too many other projects that have a much higher priority. The only place with any sense of "gloom and doom" about not implementing IPv6 quite frankly is on the ARIN PPML list. I don't get the same urgency from any of my colleagues at other institutions or from our providers. It is that simple.”

-- Respondent #8

# Quotable Quotes

“Management support for IPv6 is in name only right now. Sure IPv6 addresses and ACLs are supported in Cisco IOS but you have to purchase the expensive Advanced IP Services image not the regular IP Base. Even then, support is from the command line only - there's no GUI/Web interface support yet. (Same problem with their PIX/ASA firewalls) For an SMB where the IT guy wears multiple hats, we can't all be command line jockies. Lastly, why should I go to the trouble of implementing IPv6 if none of the big guys has yet? If neither Cisco, nor Microsoft, nor Intel, etc believe in IPv6 enough to have AAAA records published for their website, why should I?”

- Respondent #332

# Quotable Quotes

- “Our customer base is all either not ready or not capable of going to IPv6. Our backbone is ready, but the business drivers are not present.”

-- Respondent #15