Route Flap Damping Deployment Status Survey

draft-shishio-grow-isp-rfd-implement-survey

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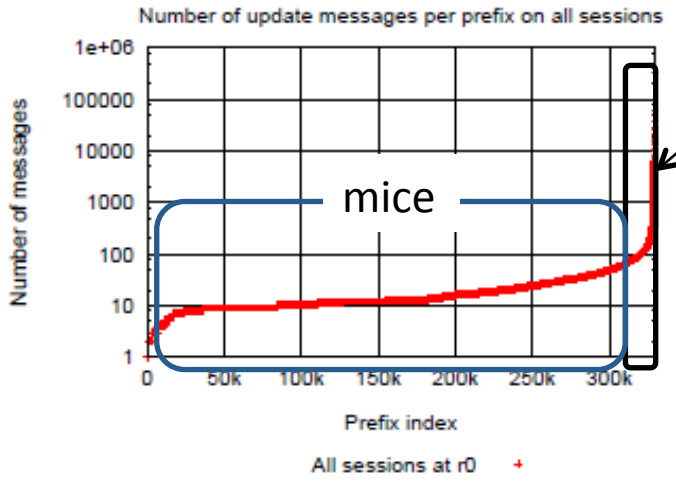
abstract

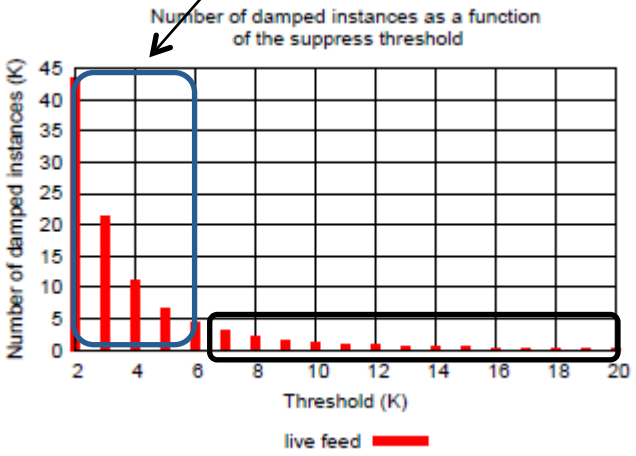
- ✓ BGP Route Flap Damping [RFC2439] is a mechanism that targets route stability. It penalizes routes that flap with the aim of reducing CPU load on the routers.
- ✓ But it has side-effects. Thus, in 2006, RIPE recommended **not to use** Route Flap Damping (see RIPE-378).
- ✓ Now, some researchers is proposing to turn RFD with less aggressive parameters. [draft-ymbk-rfd-usable]
- ✓ When Randy did presentation the report on JANOG meeting,there were different opinions about RFD among ISP operators.
- ✓ We took a survey on JANOG to analyze current RFD operational practices.
- ✓ The purposes of this draft are to share the results of the current practice survey, and to get more opinions on where to go with the solution space.

from [draft-ymbk- -usable]



only 3% prefix
are responsible 36% bgp update

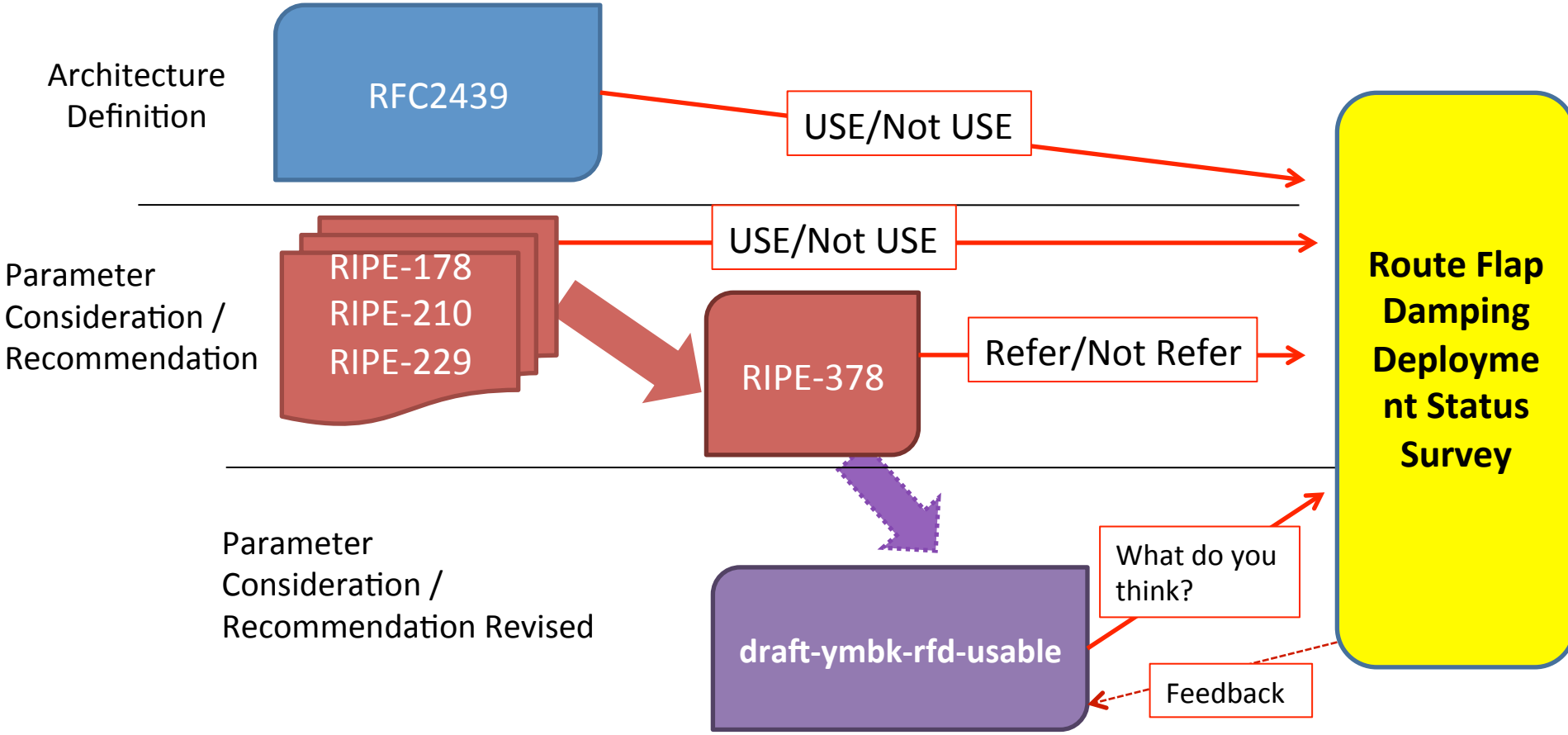
even “mice” was damped



$$\text{max-penalty} = \text{reuse-limit} \times 2^{\left\langle \frac{\text{max-suppress-time}}{\text{half-life}} \right\rangle}$$

- Propose to raise implementation/configuration
  - the suppress threshold to no less than 6000
  - the maximum threshold to 50K

RFD documentation summary



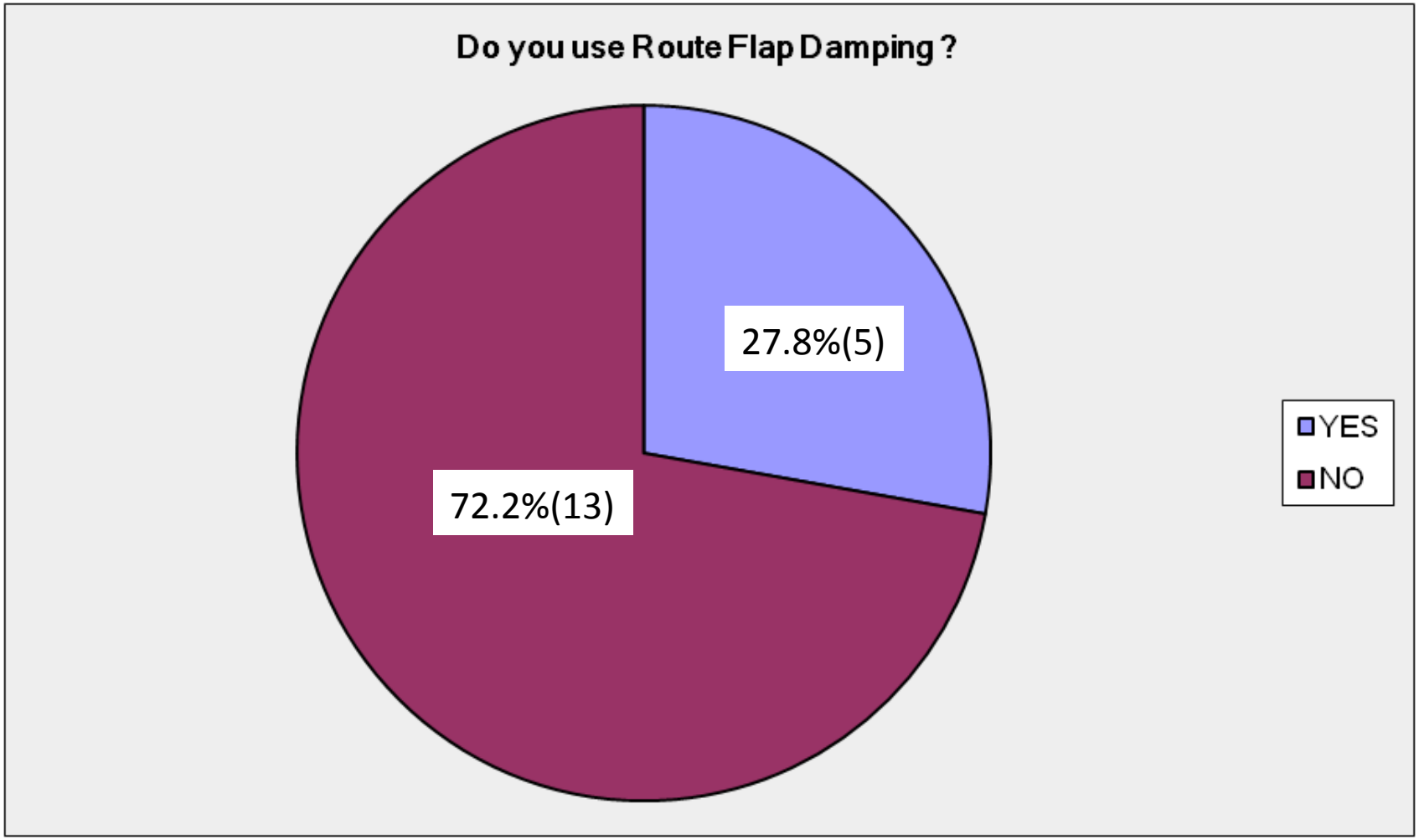
Survey's target and period

- ✓ 00-01
  - Japan Network Operator Group
    janog@janog.gr.jp (+4000 subscibrers)
  - Jan 28,2011 - Feb 12,2011
- ✓ 02 and future
  - All operators

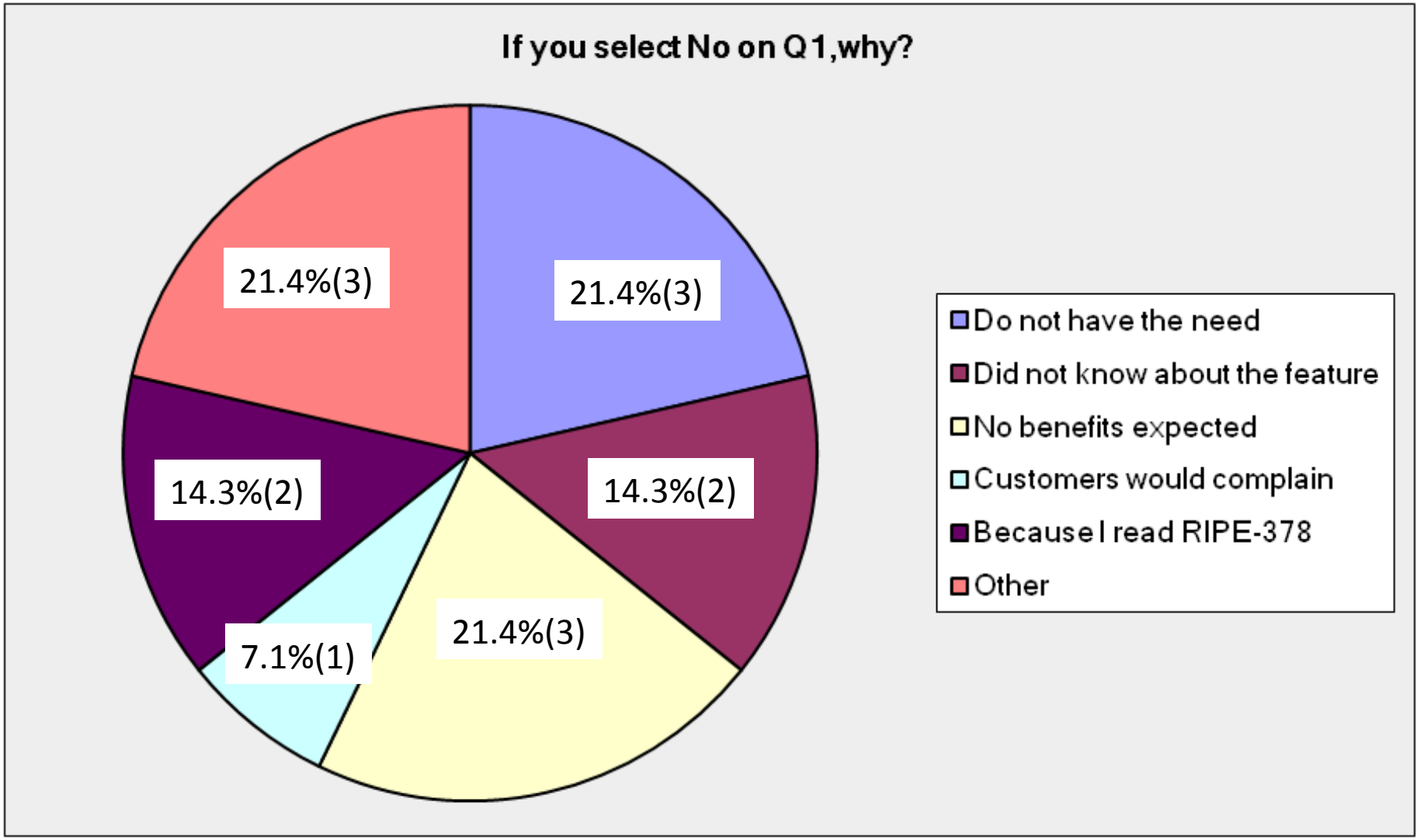
  Already announced to nanog@nanog.org
  - Please open the following url and answer the questionaire.

  https://www.surveymonkey.com/s/rfd-survey
  - - May 25,2011

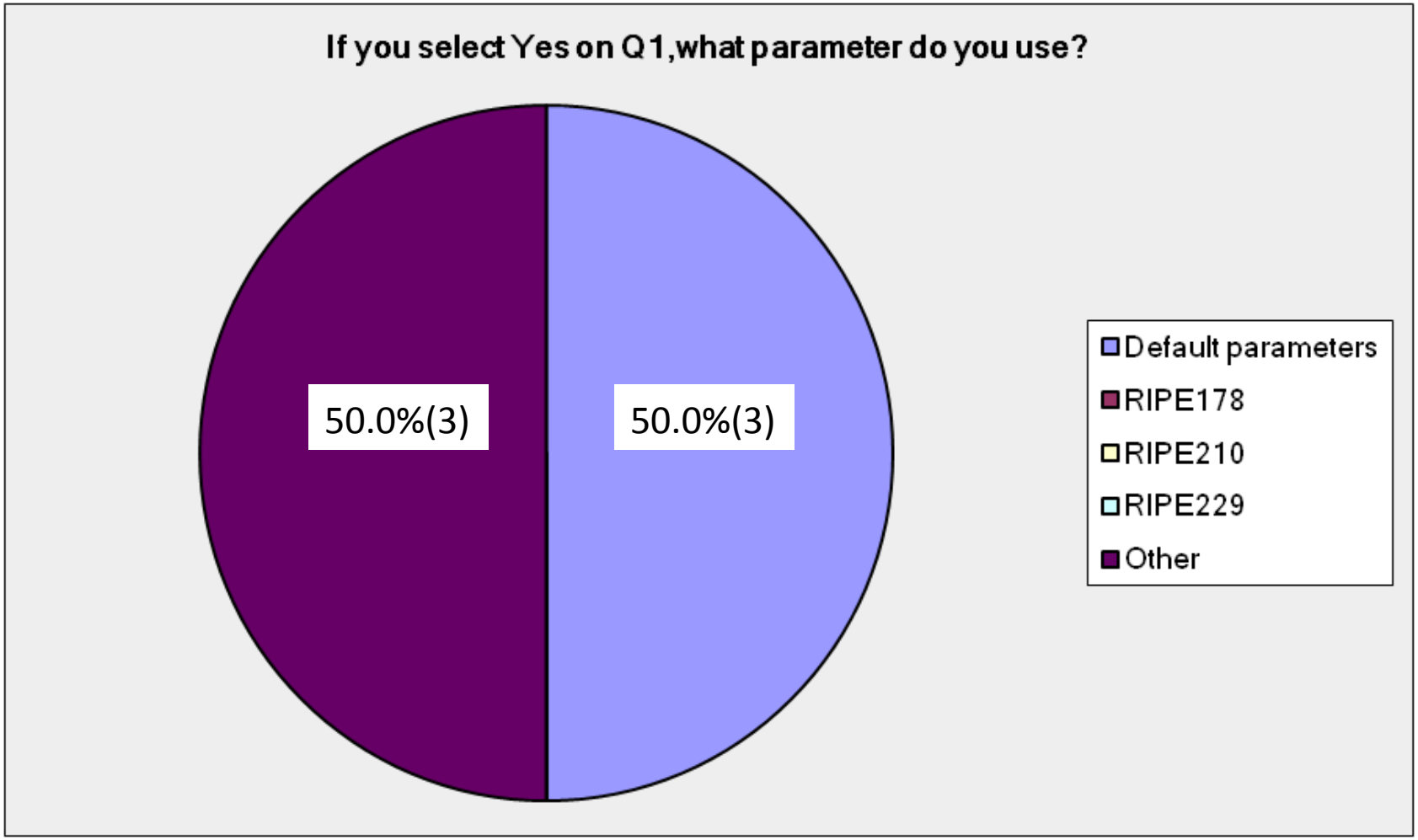
Q1.Do you use Route Flap Damping ?



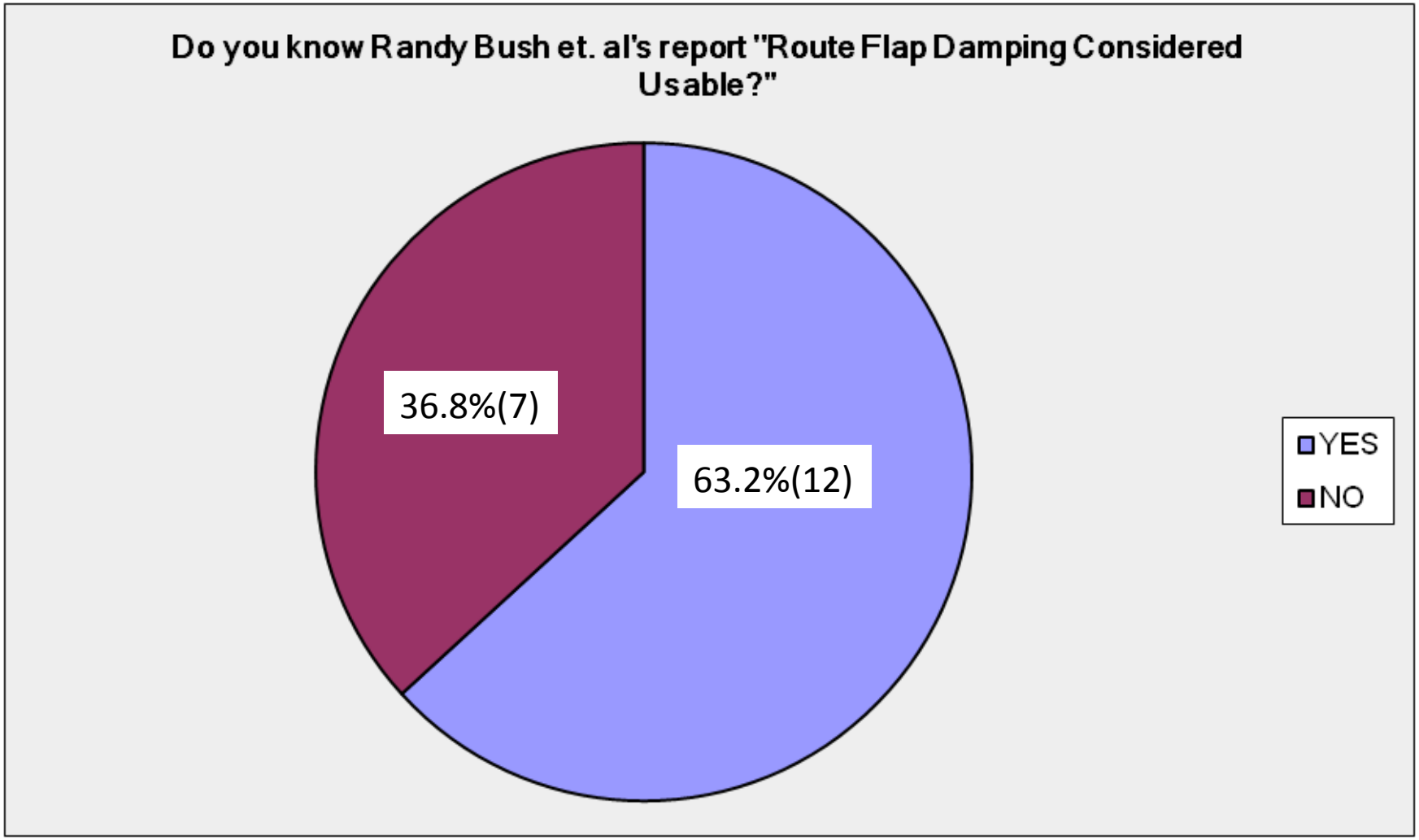
Q2.If you select No on Q1,why?



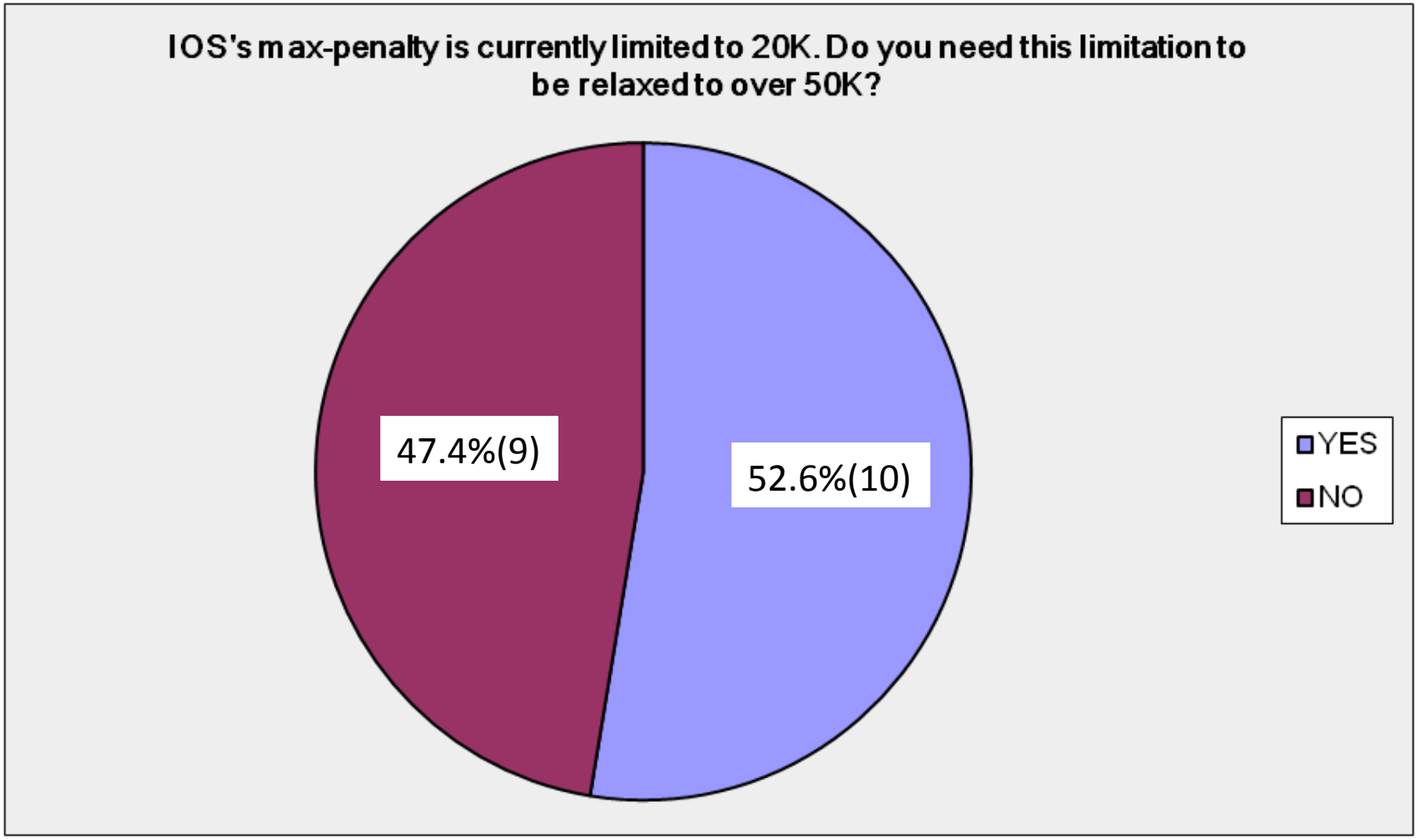
Q3.If you select Yes on Q1,what parameter do you use?



Q4.Do you know Randy Bush et. al's report ''Route Flap Damping Considered Usable?''



Q5.IOS's max-penalty is currently limited to 20K. Do you need this limitation to be relaxed to over 50K?



Q6.If you have any comments, please fill this box.

- Our peer seems to have damping enabled, and our prefix gets damped sometimes.
- We do not enable damping because we think that customers want a non-damped route.
- From the perspective of a downstream ISP, if our upstream told us that an outage occurred because a route was damped, I may call an ask "is it written in the agreement that you will do this?“
- We use damping pretty heavily
- I had RFD turned on until this morning when I discovered our router has CSCtd26215 issues. I would like to turn on a "useful" RFD.

Summary of data

- From the survey we see that there are many service providers with RFD disabled. The reason varies among providers, but it is clear that there are those who wish that RFD was made useful.
- there are still some providers who turn on RFD with default settings.

difference between Japanese and English of survey

- Added a question to understand what operators want.
  - Which is the best description of your job role?
  - According to [draft-ymbk-rfd-usable], Suppress Threshold should be set to 6K.Do you think the default value on implementations should be changed to 6K?

next step..

- please forward questionnaire to operators or NOGs you know
- will publish 02 to reflect survey results after the May cutoff

- grow or idr
  - grow is in ops, which can do requirements/surveys/..., but not protocol. so this fits right in.
  - idr is in routing which do protocols.