



**RIPE NCC**

RIPE NETWORK COORDINATION CENTRE

# Operational Update

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RIPE NCC



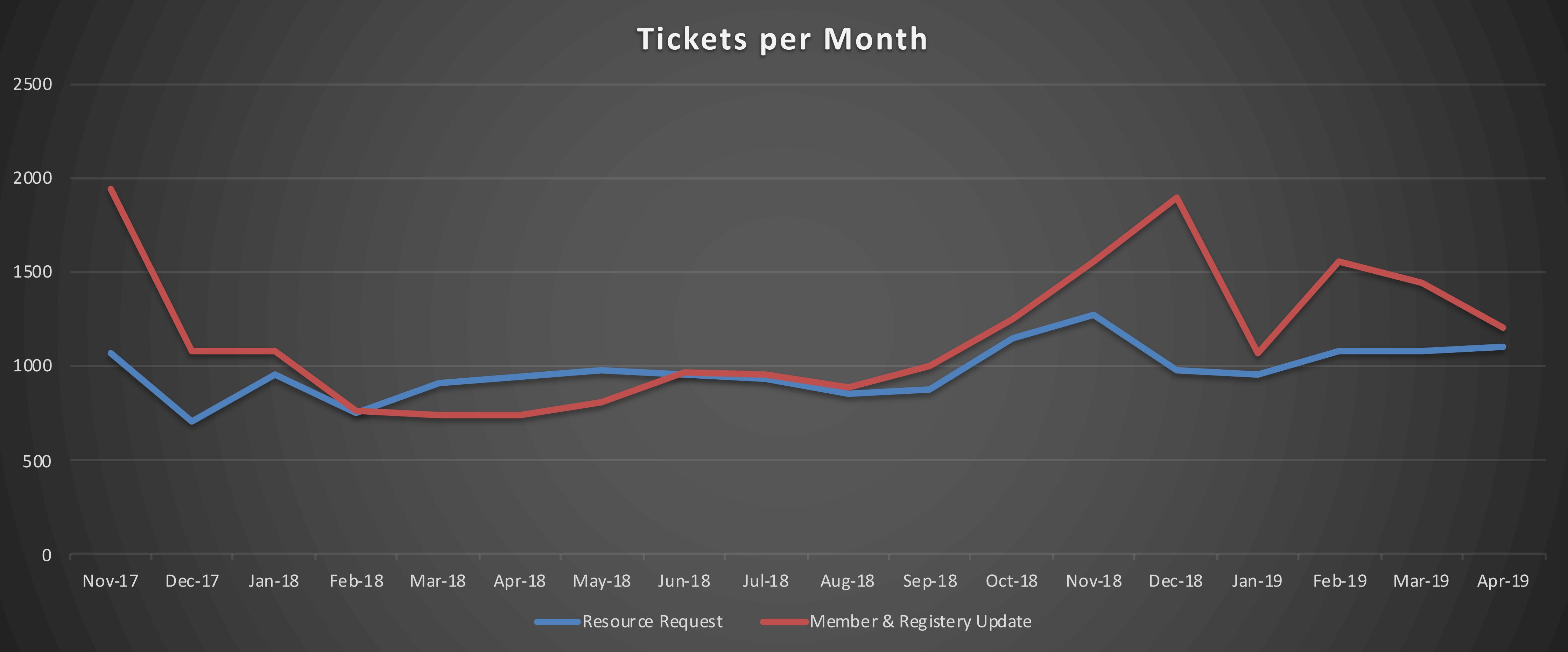
# What's Happening

Trends and challenges

# IPv4 Exhaustion

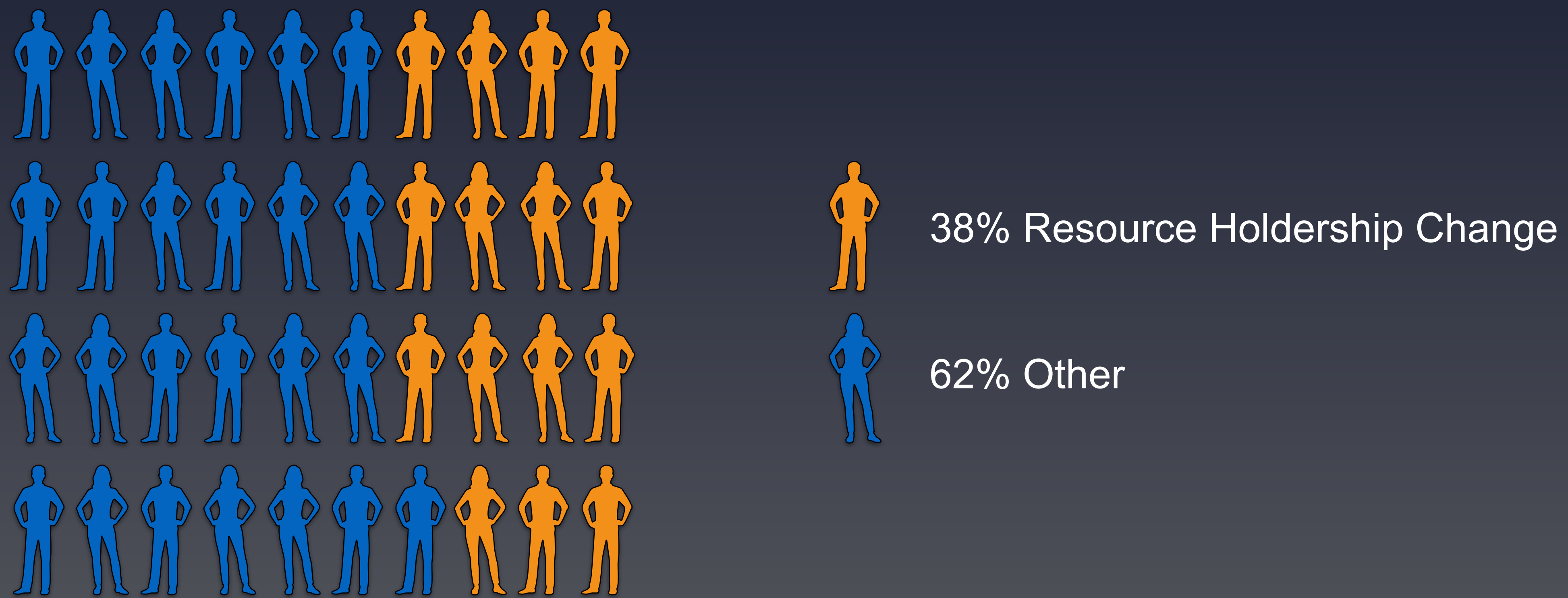


# Ticket Trends

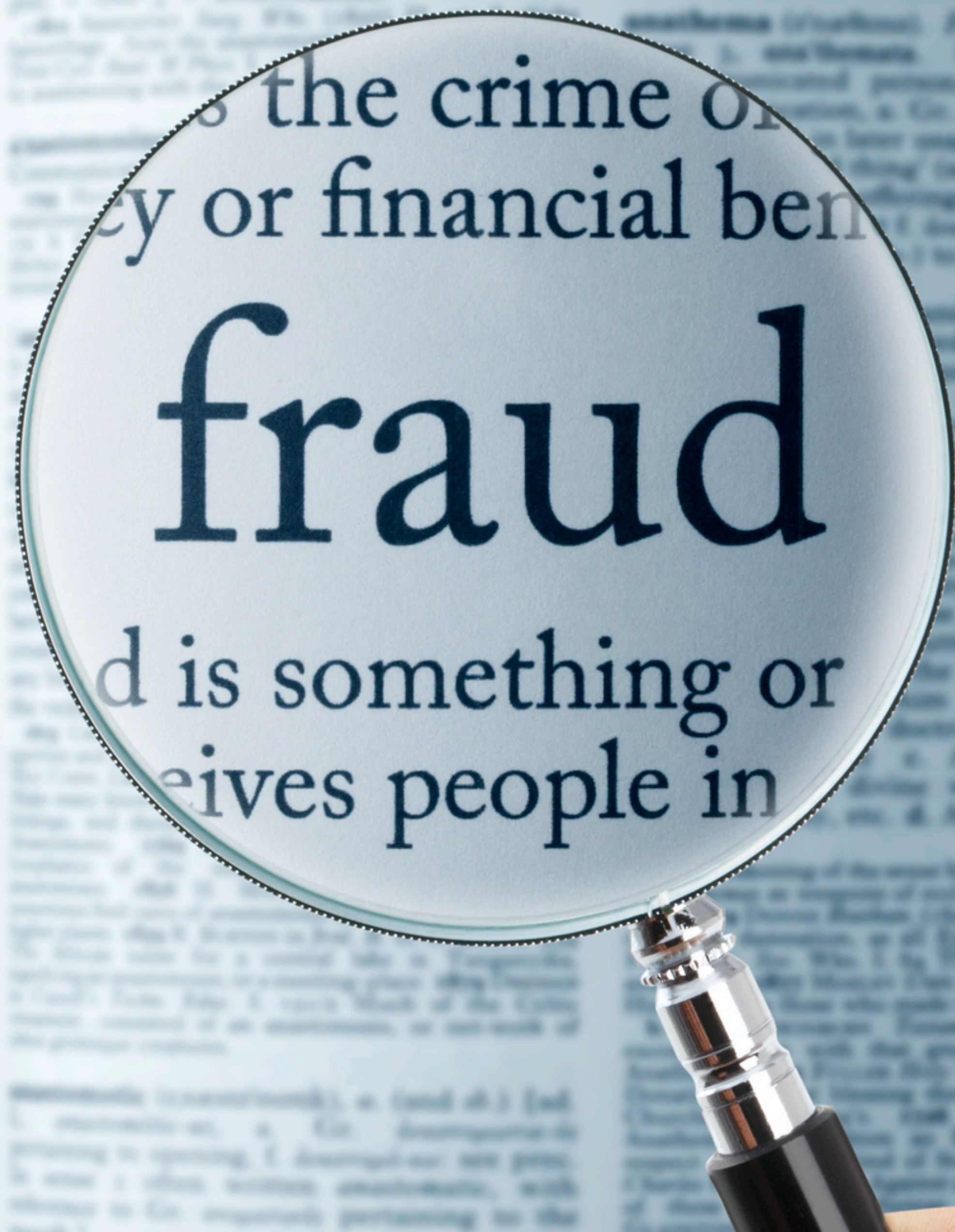




# Resource Holdership Changes



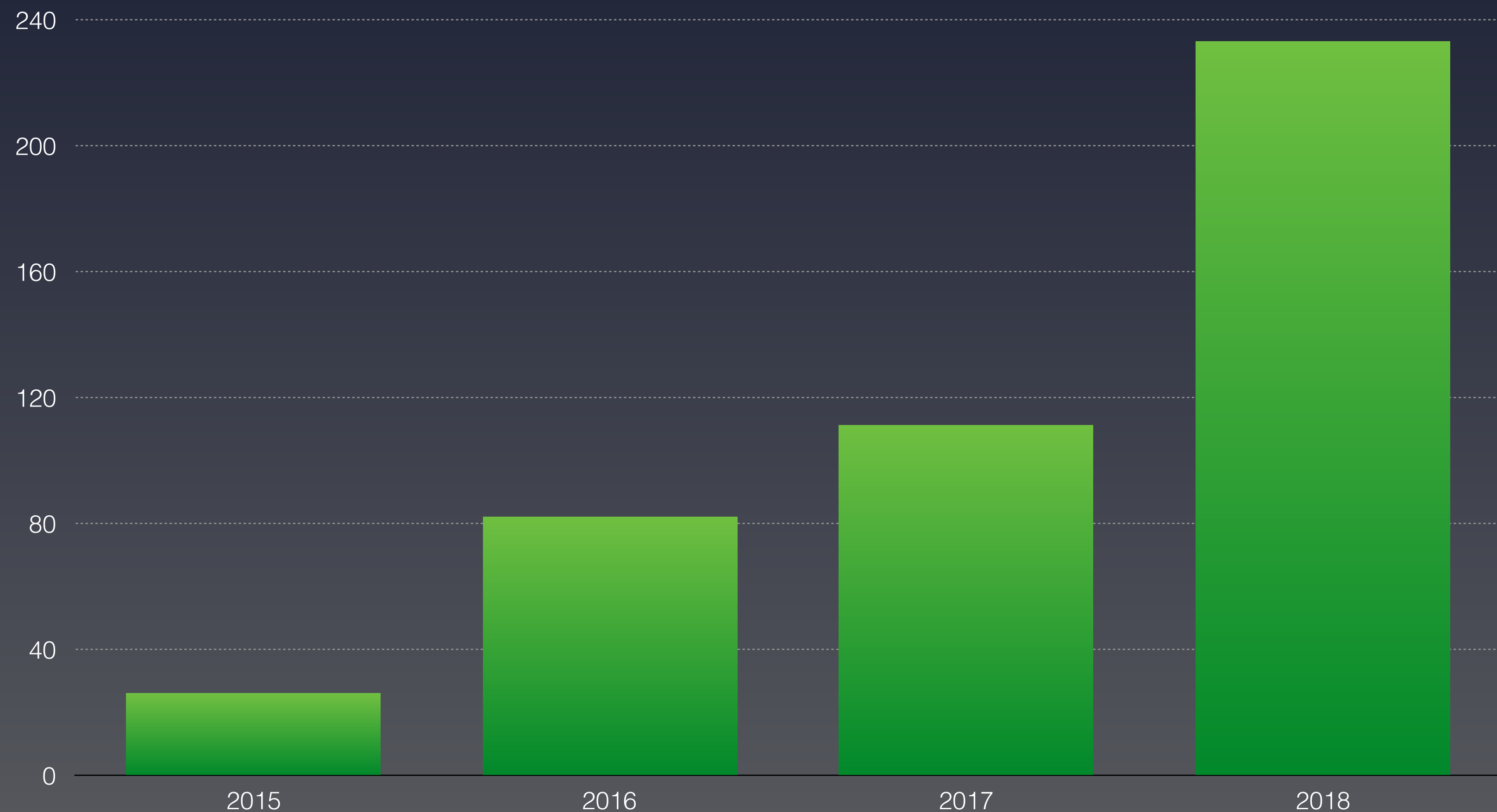




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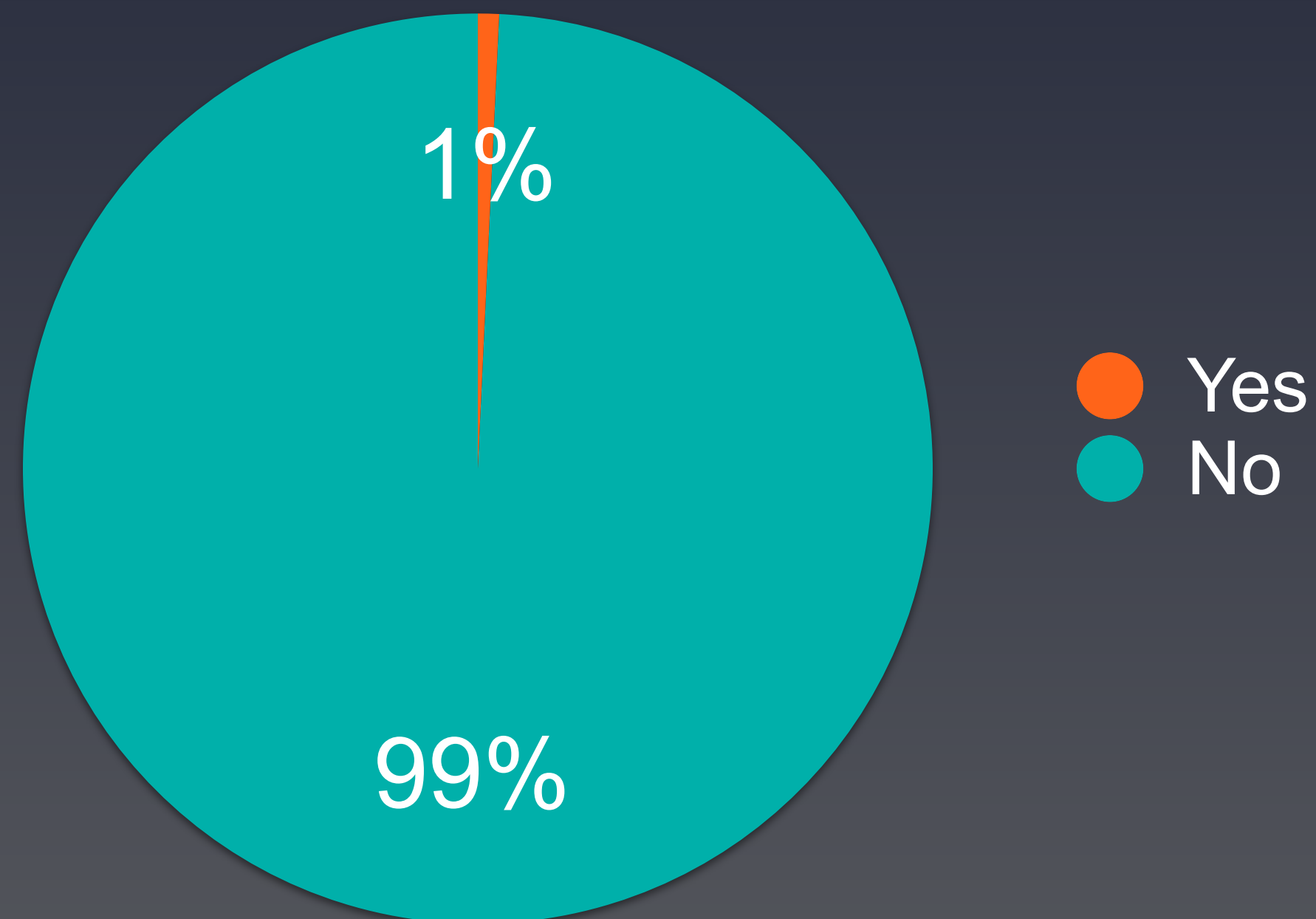


# Investigations due to Misleading Information

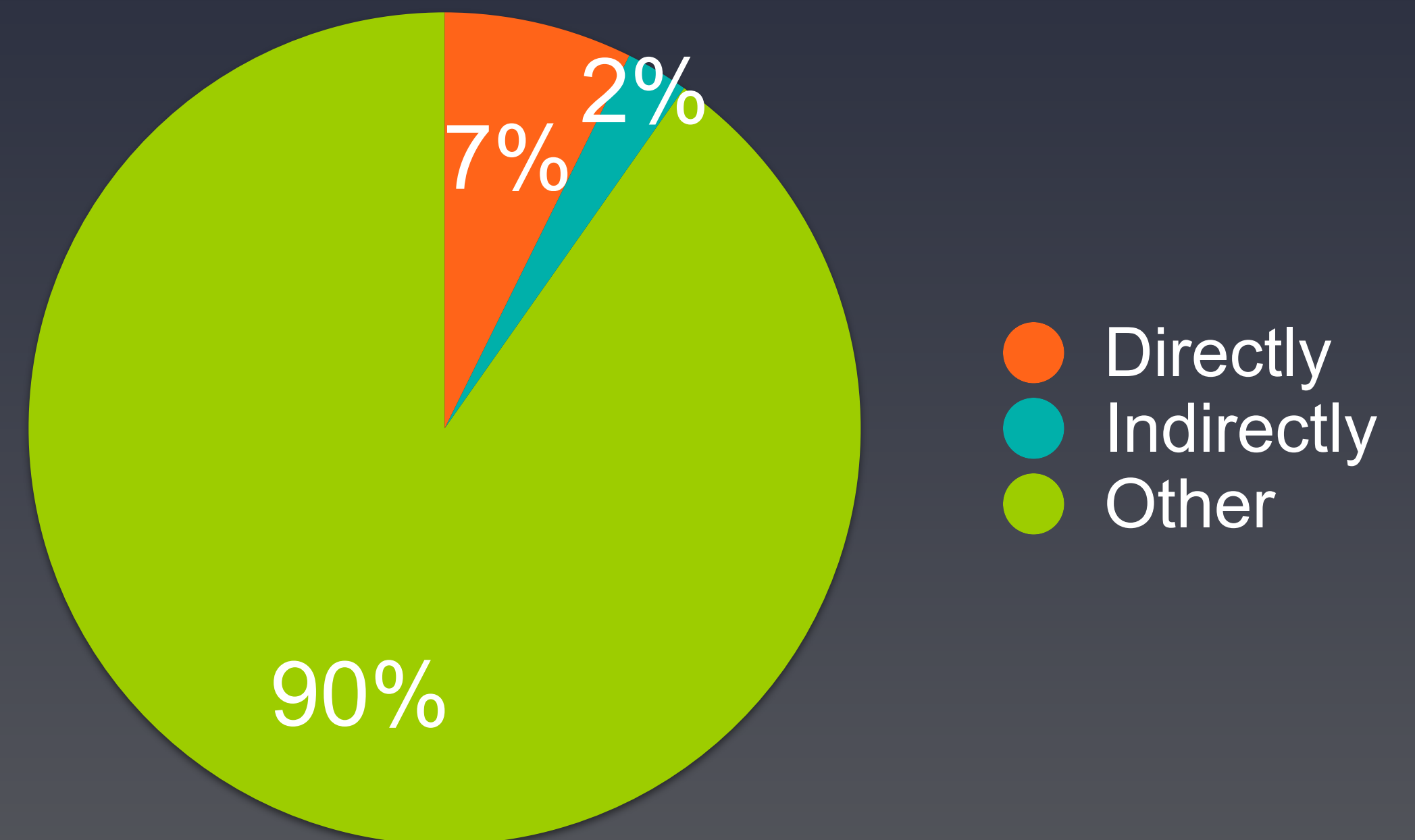




# % LIRs Being Investigated



# Impact CS / RS Workload

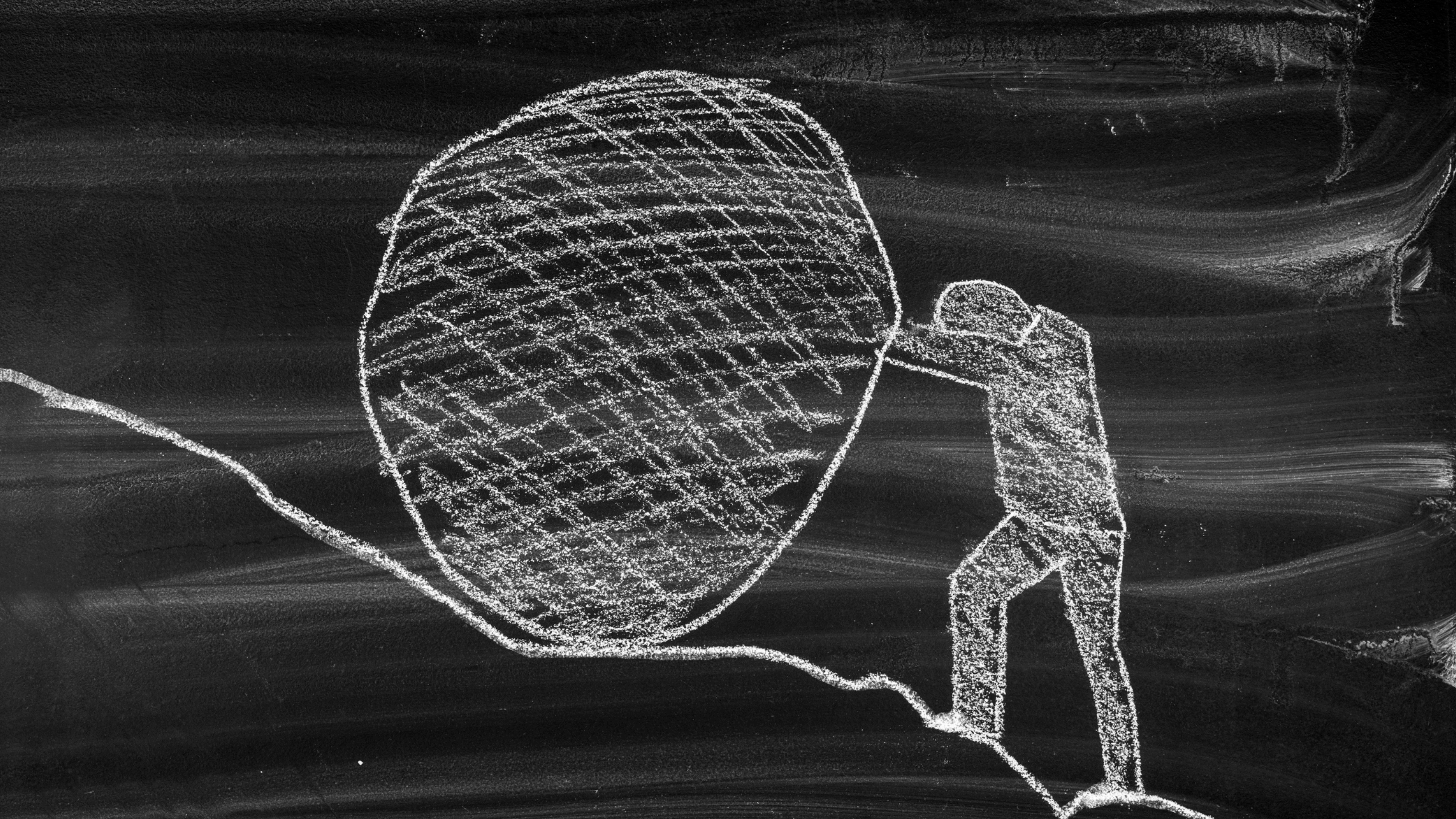


# Closures due to Misleading Information



- 69 closures since 2014
- Geographically spread across the service region
- Closure of two Russian members early this year
- Concerns from the community that the RIPE NCC might close their accounts without warning due to an innocent mistake
  - Published RIPE Labs article in response: <https://www.ripe.net/s/Rdc7>
- Closing an account is a lengthy process with lots of checks and balances
- Both closed members requested arbitration against the RIPE NCC's decision, and in both cases the ruling was that we followed the procedures









# Balancing Act

Apply stronger due diligence in  
the right places





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# Trust Model Applied to Policy Transfers



- Very thorough work revising our internal procedures
- Two pilots in November 2018 and February 2019
- Adjusted model according to the findings
- New model currently in use
- Aim is to treat everyone in a consistent way



# Increasing Efficiency

Work smarter, not harder

# Policy Transfers Automation



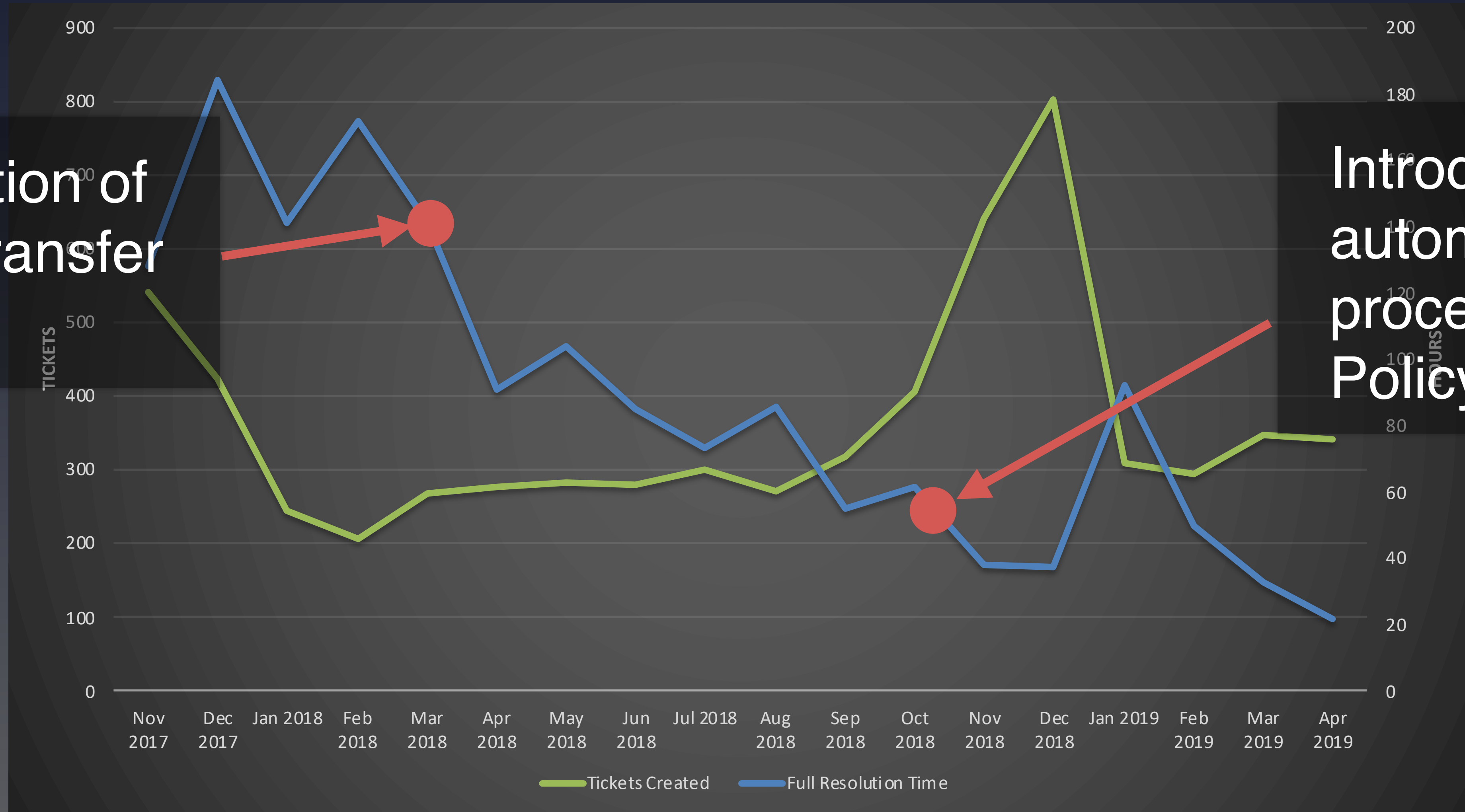
- Streamlining internal procedures
- Automating checks for transfer approvals
- Automating updates in the registry and RIPE Database
- Deployed October 2018
- Measured increase in efficiency

# Policy Transfer Resolution Time



Introduction of  
Policy Transfer  
Wizard

Introduction of  
automation for  
processing  
Policy Transfers





# Ticketing System



- 20 year old Ticketing System needed replacement
- Developing in-house vs. buying off-the-shelf
- Cost difference is huge
- After extensive product selection, we settled for Zendesk
- Integration with non-hosted Document Management System to keep personal documents outside the cloud

# Feedback from the Community



- Usability issues reported to our staff and discussed in the mailing lists
- Documents being shared if integration with Document Management System was not used
- Lack of functionality in the LIR Portal to see ticket history and attachments

# Ticketing System Improvements



- Manually remove the attachments to mitigate the issue
- Working on a permanent solution to automatically remove the attachments as soon as they are received
- Other usability improvements are planned for later this year



# RPKI

Contribute to a secure Internet routing



# RPKI Uptake

A detailed illustration of a rocket launch. The rocket, with a white body and blue accents, is angled upwards from the bottom left towards the top right. Bright orange and yellow flames from the engines are visible at the base. The background is a deep blue space filled with numerous small white stars. On the right side of the image, the text 'RPKI Uptake' is written in a large, white, sans-serif font.



# RIPE NCC Strategy on RPKI



- Maintain a focus on RPKI
- Provide a stable system that network operators can rely on
- Increase reliability in the core RPKI:
  - Expanding and replacing our Hardware Security Modules (HSMs)
  - Scaling and protecting our publication servers against potential attacks
  - Rearchitecting our application so it can run on multiple VMs in order to increase resilience



# RPKI Validator



- We commit to contributing to the ecosystem by providing Data Centre grade implementation
- Currently working on the stability issues in the RPKI Validator 3
- Look into requirements from network operators and discuss with the Board and the community what will be our next steps



# Together, let's shape the future of the Internet



# Questions



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