



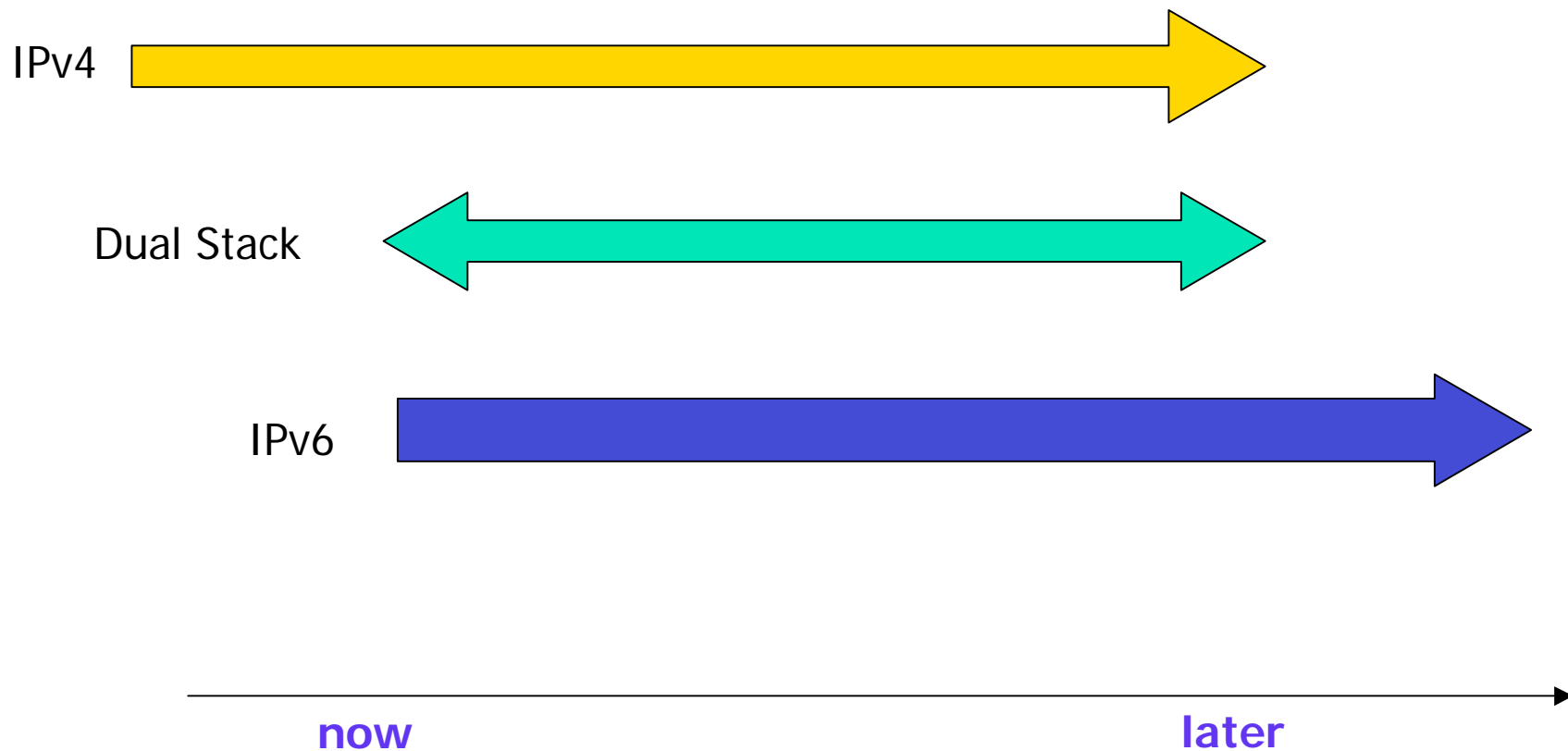
# IPv4 Address Transfer proposal

## APNIC prop-050-v003

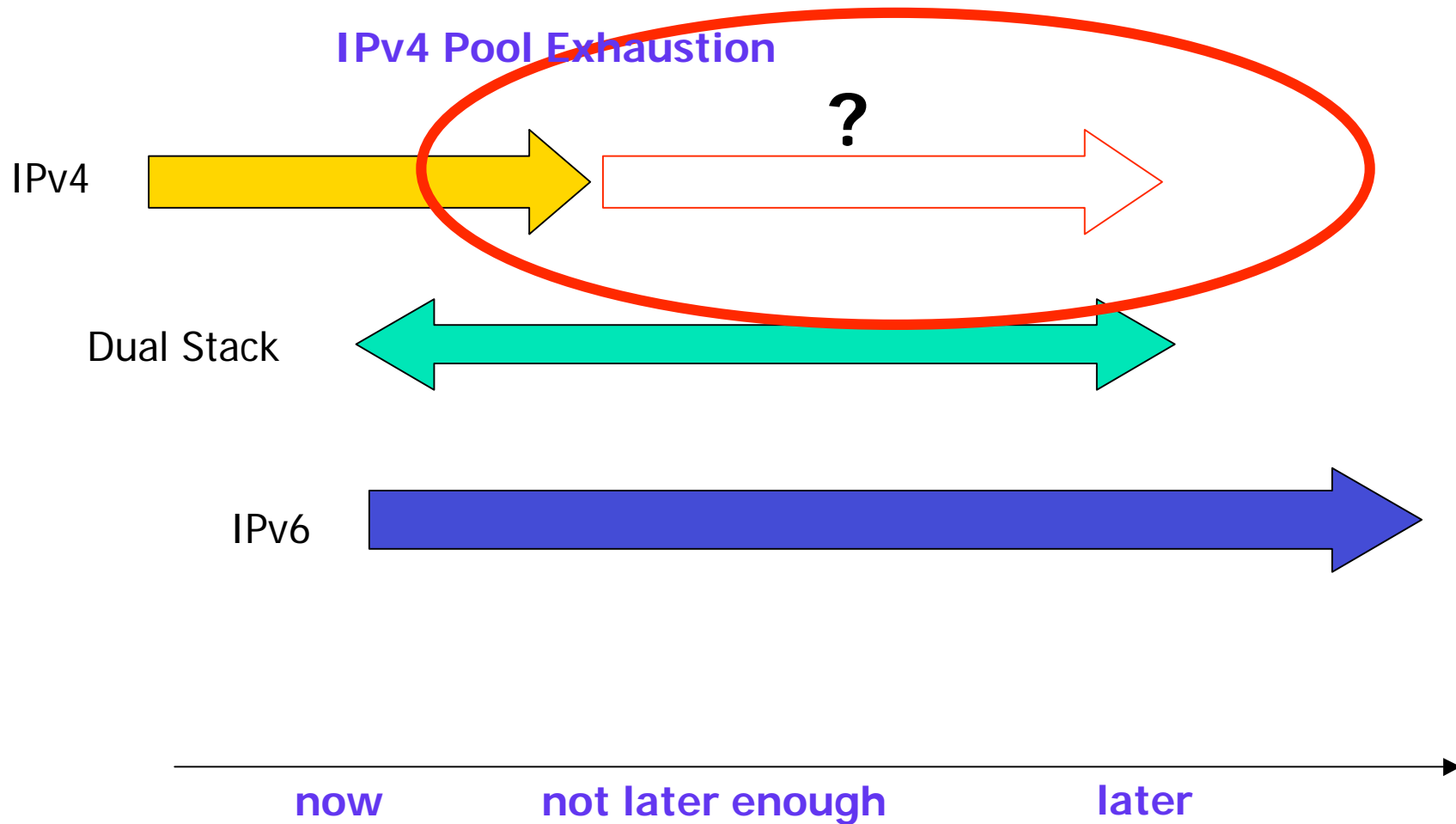
---

Geoff Huston

# IPv4, IPv6, and Transition: As planned



# IPv4, IPv6, and Transition: As implemented





# Motivation

---

- If the demand for IPv4 addresses extends beyond the likely pool exhaustion date ...
  - How will IPv4 addresses be distributed to meet this ongoing demand?
  - Will industry be forced into a mode of IPv4 address transfers to support dual stack deployments?
    - Should we look at this option now, or wait until its time to really panic?



# Address Transfer Proposal

---

- APNIC to recognise the transfer of IPv4 addresses between current APNIC account holders
- Record these IPv4 address transfers in the APNIC IPv4 address registry



# Constraints – Address Block

---

Address block:

- /24 or larger
- administered by APNIC
- status is “current”
- subject to all current APNIC policies



## Constraints – Source

---

The disposer is:

- a current APNIC account holder
- registered holder of the address block in APNIC registry
- ineligible for any further APNIC IPv4 address allocations for 24 months
- must document the reasons for any future IPv4 address requests following this 24 month period



# Constraints – Recipient

---

The recipient is:

- current APNIC account holder
- subject to all APNIC policies
- liable for APNIC fees associated with current resource holdings





## Details

---

- Transfer procedure requires notification to APNIC by both parties
- Details of the transfer to be published by APNIC in a transfer log
- APNIC may levy a transfer registration fee



# Advantages

---

- Maintain a consistent and accurate public registry of address holdings
- Mitigate risks associated with potential black / grey market formation
- Provide indirect incentives for address holders to recirculate unused / unneeded IPv4 address space to support the dual stack transition phase



# Disadvantages

---

- Market formation and risks of various forms of market distortions emerging
  - This would be beyond the direct control or purview of APNIC
- Potential for process abuse
- Potential for further routing table growth



# Discussion

---



# Possible discussion points

---

- Should there be more constraints in this transfer policy? Or fewer constraints?
- Would adoption of this policy inevitably lead to markets in addresses?
  - Who would conduct the market?
  - Who would regulate the market?
  - One market or many markets?
  - National, regional or global market scope?
- Does this make addresses “property”?
  - Are addresses already “property”?
  - Does this alter their utility and use in any way?
- To what extent are these policy issues for APNIC and what extent are policy issues to be considered in other forums?
- Should this be considered in terms of potential alternative measures?