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Where networks meet

Proxy-Arp considered harmful

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RIPE63 – EIX Working Group

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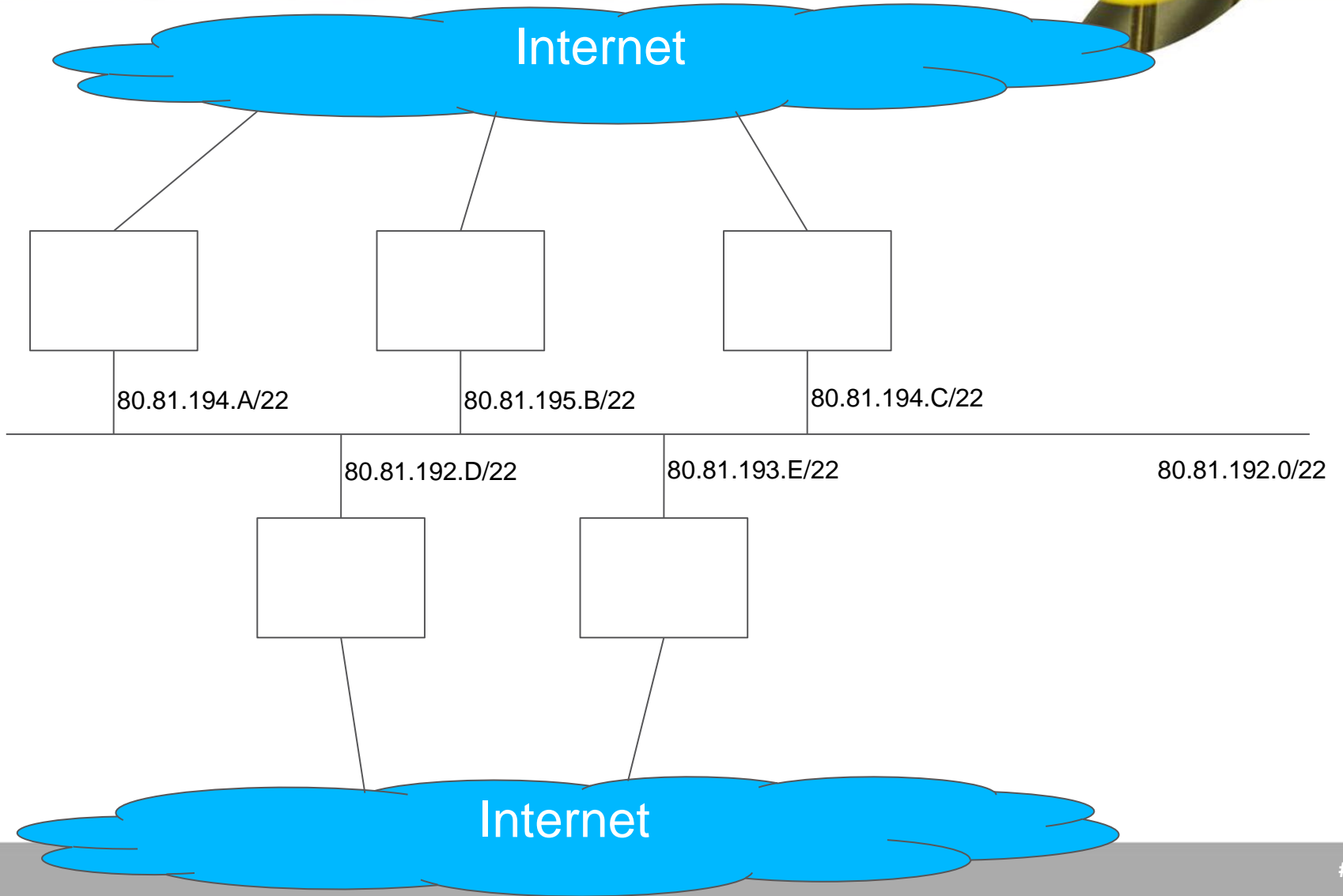
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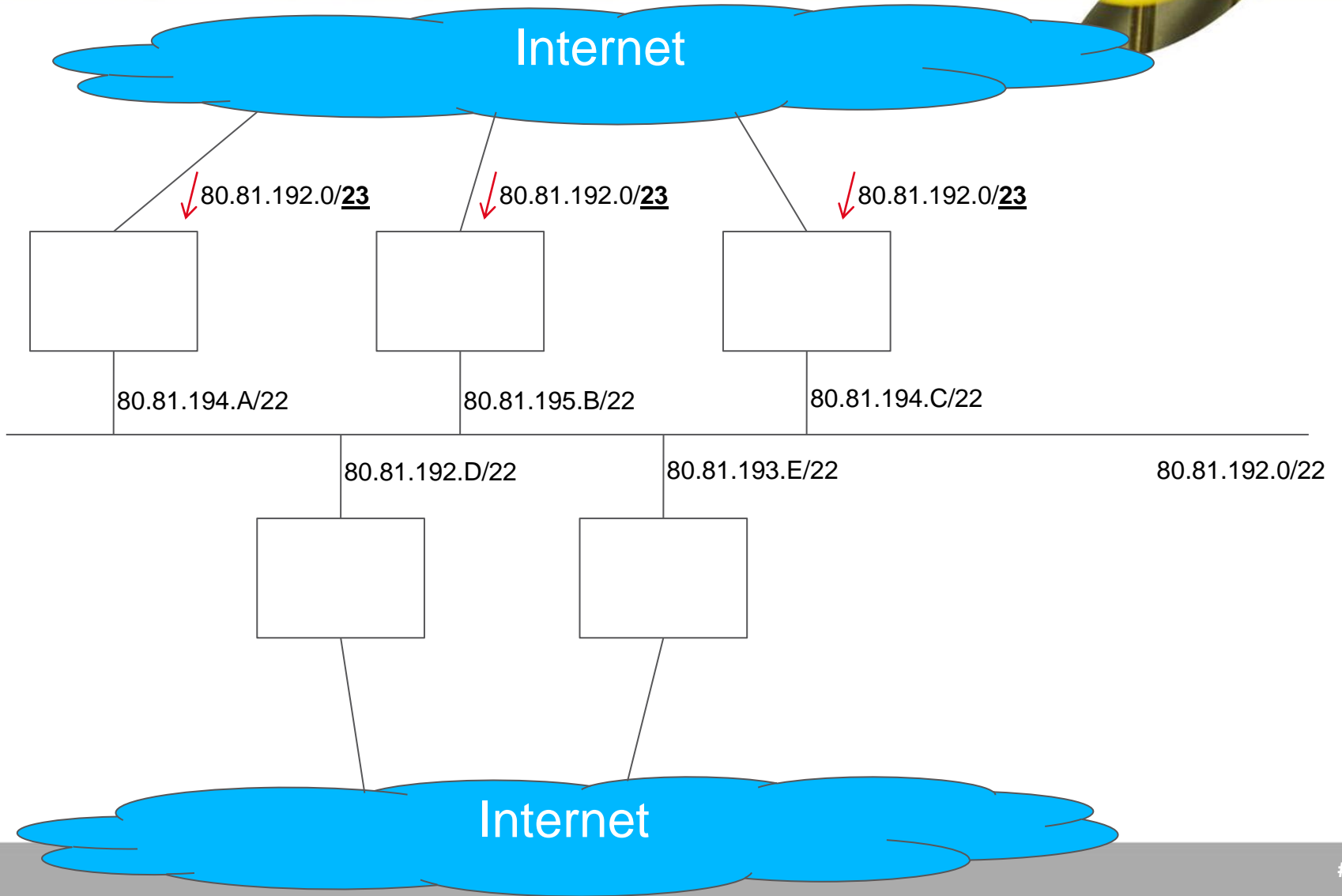


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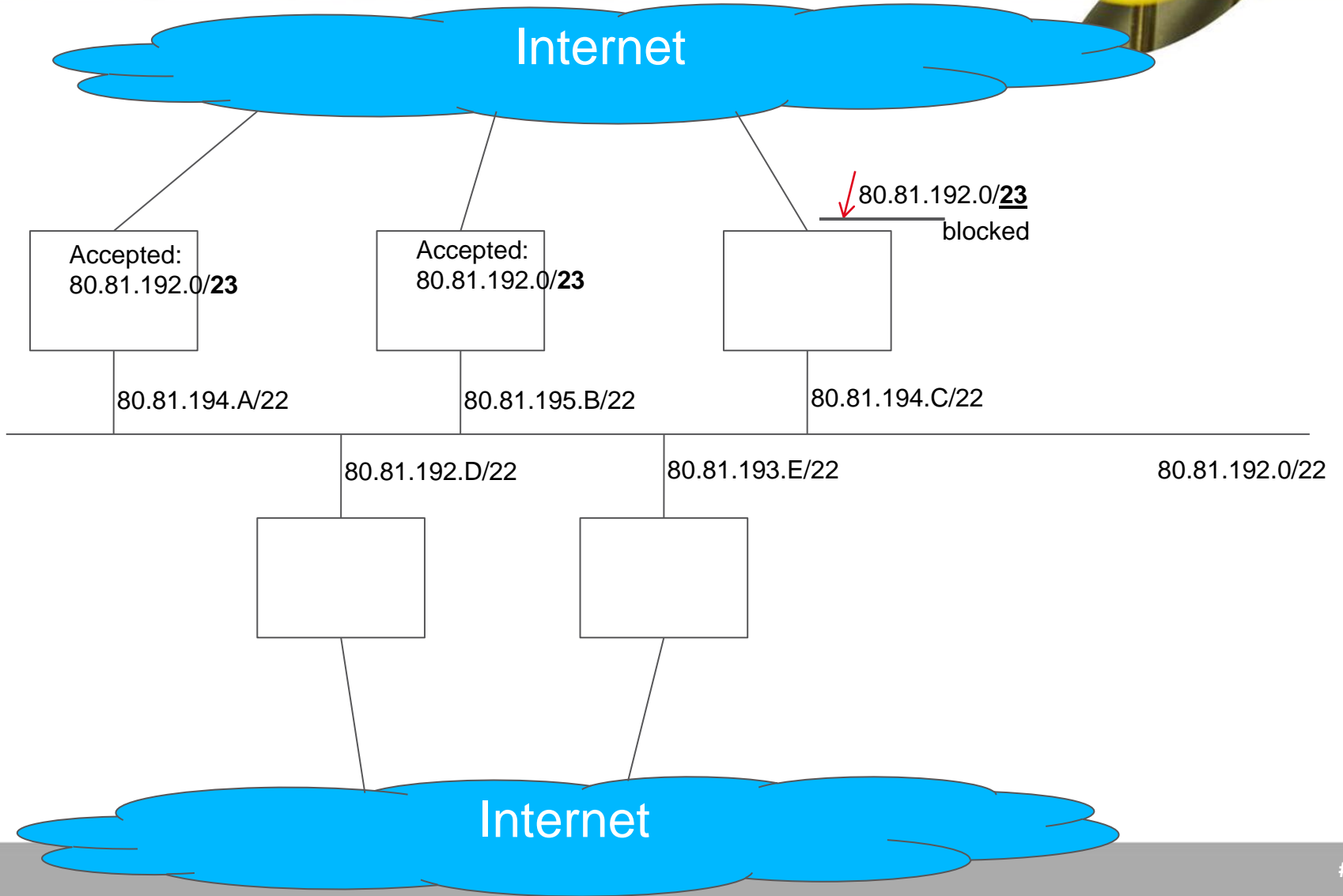


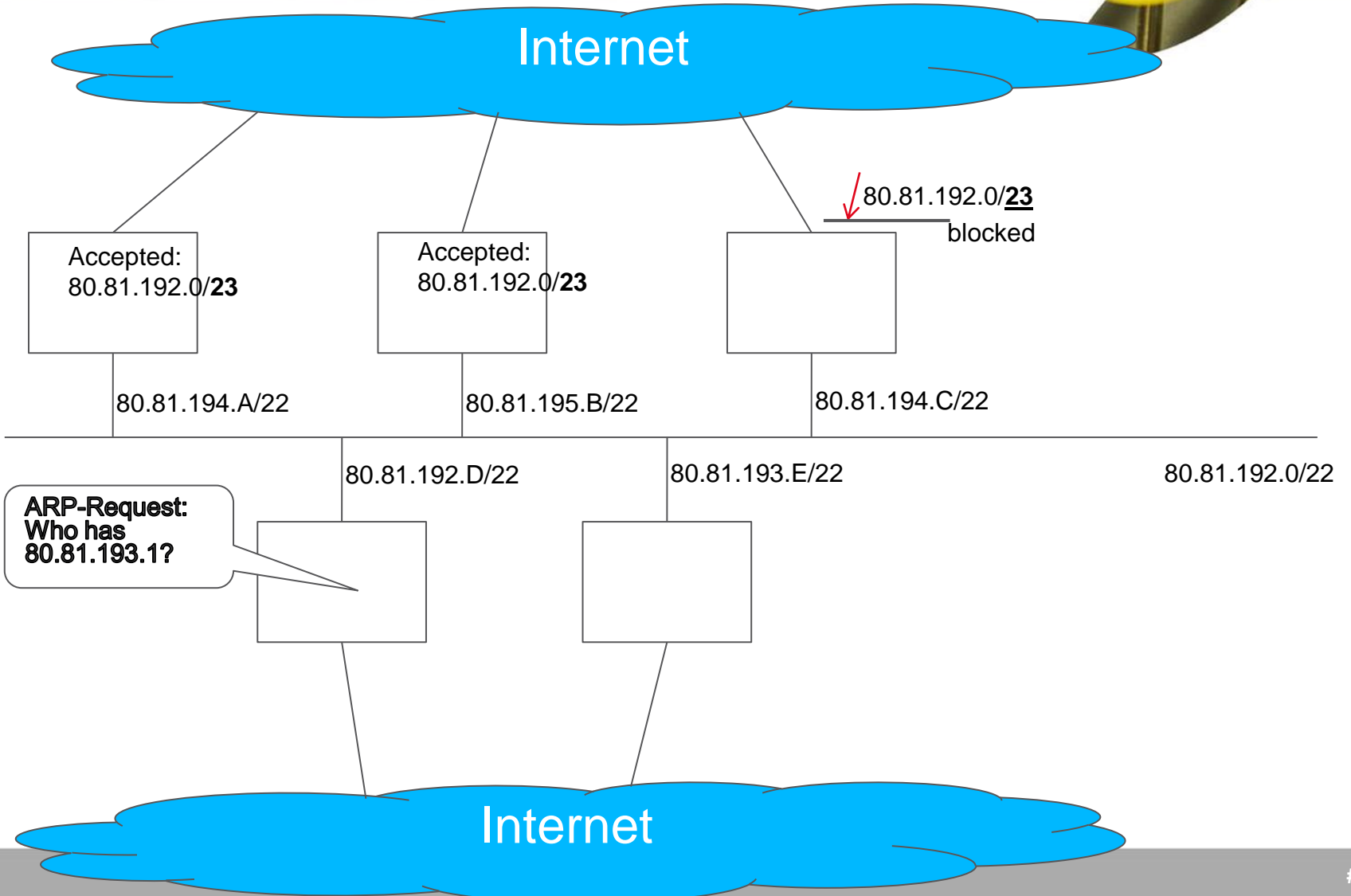
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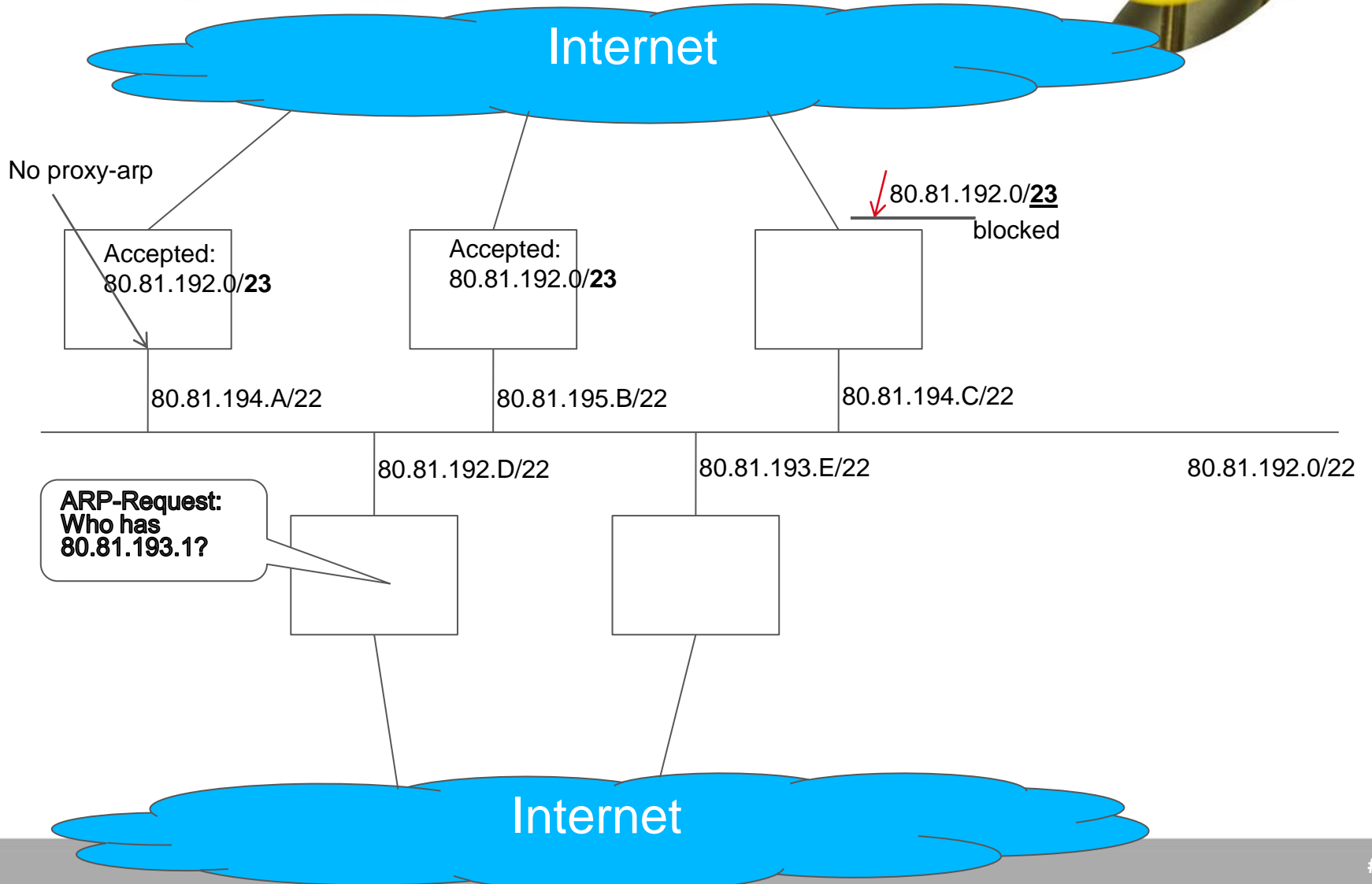


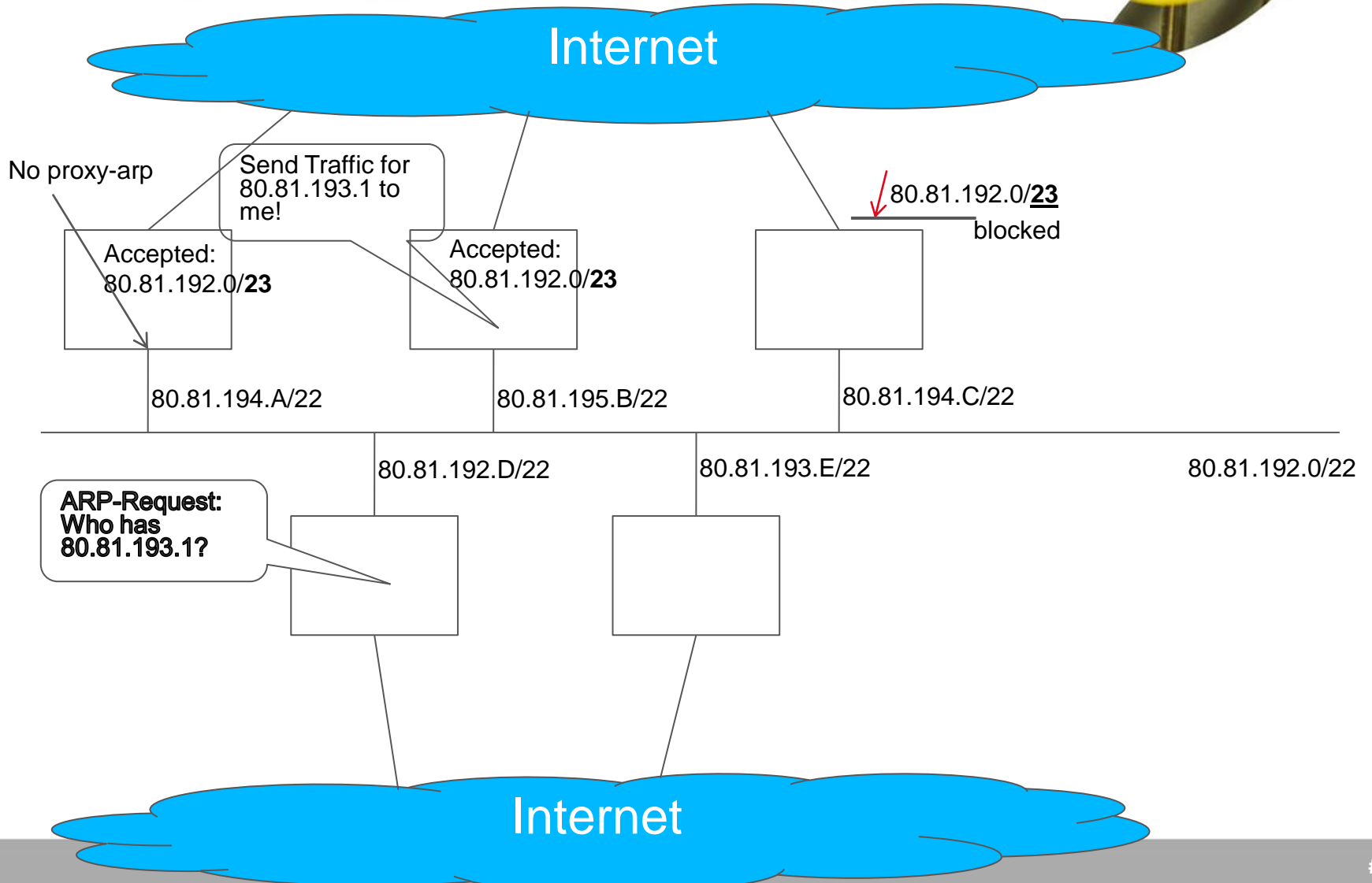


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Proxy-ARP: a history

- RFC 1027: „ Using ARP to Implement Transparent Subnet Gateways“
 - 1987: A network with 100 hosts was considered large
 - Repeaters were common
 - Subnetting was „the new thing“
 - Proxy-Arp was a solution for connecting networks in which hosts were not aware of subnetting
- Proxy-Arp „on“ as default in Cisco IOS since version 9 at least
- Do we still need this?



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DE-CIX: Lessons learned

- Before the incident we only tested proxy-arp when new customers connected
- Configuration changes went unnoticed
- Now:
 - We test all connected customers for proxy-arp every 10 minutes
 - In case we find one:
 - 24/7 support gets a message
 - Customer is notified
 - Customer port gets shut down
 - As soon customer confirms he has turned off proxy-arp he gets re-enabled



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Thank you

Join DE-CIX now!

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