

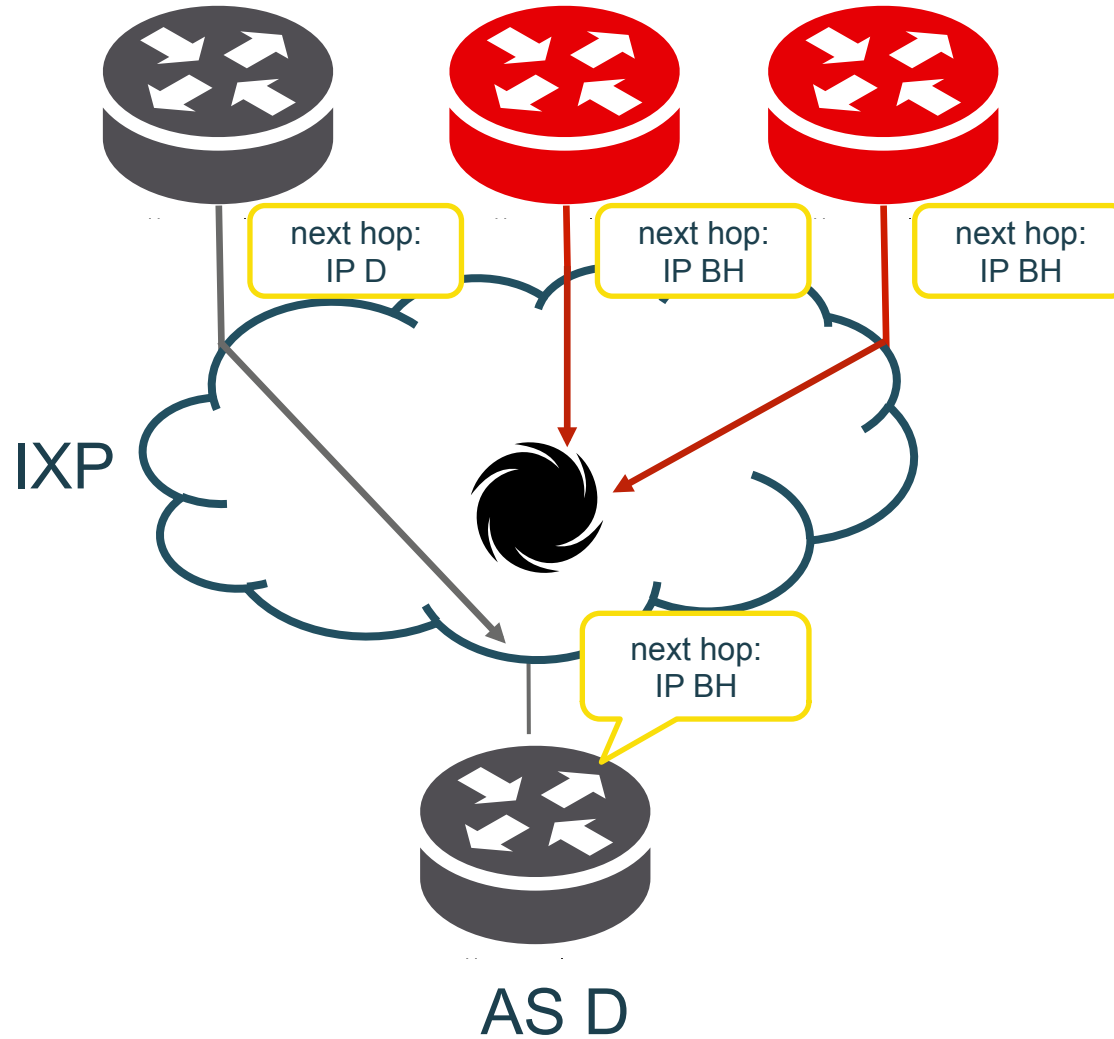


# ***From an Idea to Reality: RFC 7999***

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CIO

# Blackholing



# Different Triggers for Blackholing

## → IXPs (selection):

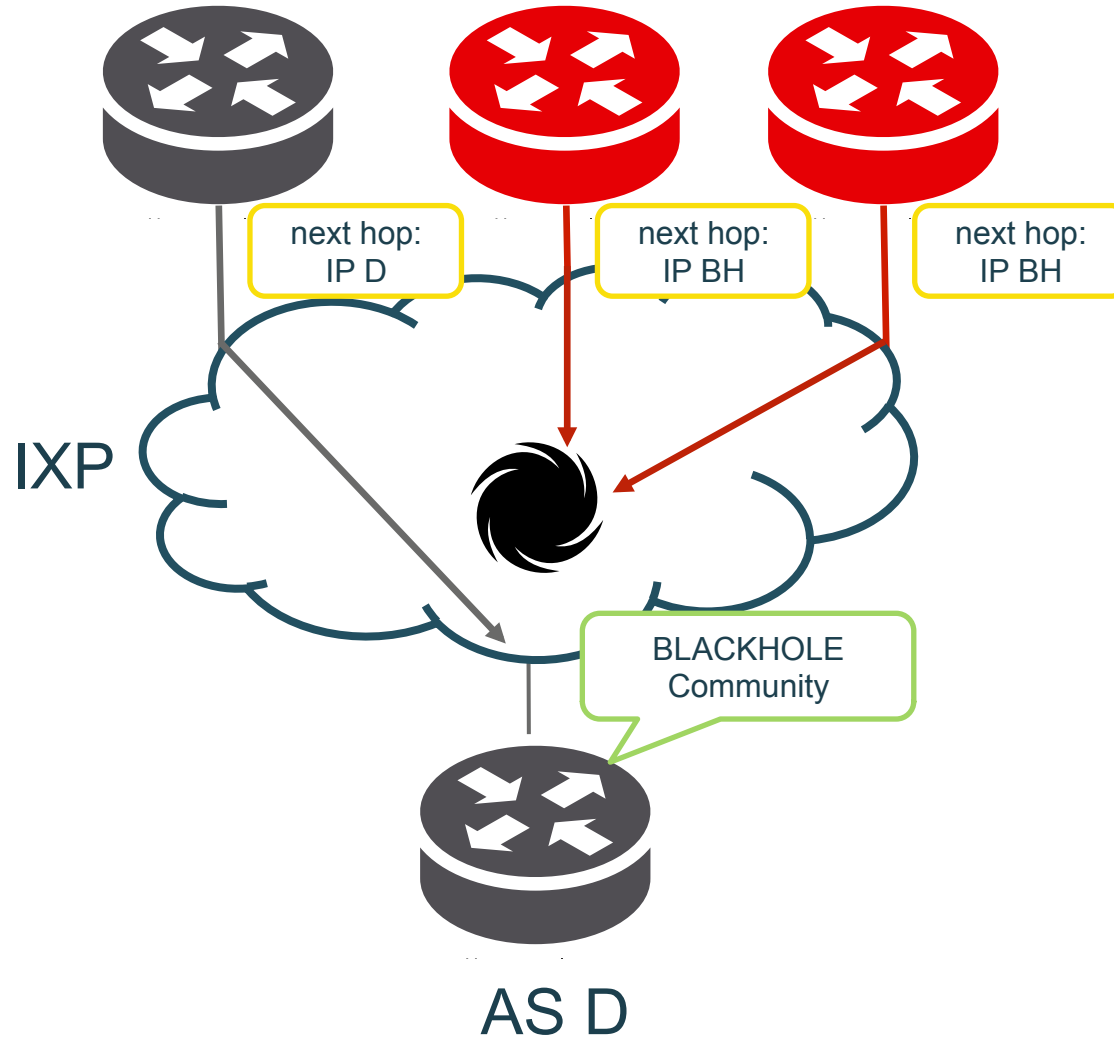
- DE-CIX Apollon      Blackhole IP Address: FRA: 80.81.193.66, NY: 206.130.10.66
- Netix                Blackhole Community: 65499:999
- MSK-IX.ru         Blackhole Community: 0:666 ⚡
- NIX.CZ             Fenix: RTBH
- TPIX.pl             Blackhole Community: 29535:666 ⚡

⚡ Policy control at route servers

## → ISPs (selection):

- Init7:                Blackhole Community: 65000:666
- Team Cymru:        Blackhole Community: 64496:666
- Hurrigan Electric: Blackhole Community: 6939:666
- NTT:                 Blackhole Community: 2914:666

# Blackholing – BLACKHOLE BGP



## Supporting BGP Speakers

BGP Speaker	Implementation Status
BIRD	Done
GoBGP	Done
OpenBGPD	Done - Usage hint: "allow from any community BLACKHOLE set nexthop blackhole"
ExaBGP	Done
Quagga	Requested
Nokia	Requested
Cisco	Open
Juniper	Open
Brocade	Open
Huawei	Open

**Network vendors, please support RFC 7999!**

# Supporting IXPs / ISPs

→ 44 IXPs:

<a href="#">DE-CIX</a> FRA, NYC, MAD, DUS, MUC, HAM, IST, PMO, MRS, DFW	<a href="https://de-cix.net/en/services/globepeer/blackholing">https://de-cix.net/en/services/globepeer/blackholing</a>
<a href="#">NYIIX</a>	<a href="http://www.nyiix.net/rtbh/">http://www.nyiix.net/rtbh/</a>
<a href="#">CIX.HR</a>	<a href="https://www.cix.hr/o-cix-u/infrastruktura/route-server">https://www.cix.hr/o-cix-u/infrastruktura/route-server</a>
<a href="#">Community-IX</a>	<a href="https://www.community-ix.de/technik/">https://www.community-ix.de/technik/</a>
<a href="#">LAIIX</a>	<a href="http://www.laiix.net/rtbh/">http://www.laiix.net/rtbh/</a>
<a href="#">Equinix</a> Ashburn, Atlanta, Chicago, Dallas, Los Angeles, Miami, New York, Palo Alto, San Jose, Seattle, Toronto, Vienna, Geneva, Paris, Zurich, Hong Kong, Melbourne, Osaka, Singapore, Sydney, Tokyo	<a href="http://www.sanog.org/resources/sanog28/SANOG28-Conference_RTBH-Safiudeen.pdf">http://www.sanog.org/resources/sanog28/SANOG28-Conference_RTBH-Safiudeen.pdf</a>
<a href="#">MSK-IX</a> Moscow, St.-Petersburg, Rostov-on-Don, Stavropol, Samara, Kazan, Ekaterinburg, Novosibirsk, Vladivostok	<a href="http://kb.msk-ix.ru/en/ix/services/route-server/#ddos">http://kb.msk-ix.ru/en/ix/services/route-server/#ddos</a>

→ 6 ISPs:

<a href="#">KPN (AS286)</a>	<a href="https://as286.net/AS286-communities.html">https://as286.net/AS286-communities.html</a>
<a href="#">SysEleven (AS25291)</a>	<a href="https://isp.syselven.net/communities/#communities-for-customers">https://isp.syselven.net/communities/#communities-for-customers</a>
<a href="#">Strato AG (AS6724)</a>	
<a href="#">Individual Network Berlin e.V. (AS29670)</a>	
<a href="#">Coloclue (AS8283)</a>	
<a href="#">Fusix Networks (AS57866)</a>	

**If you support RFC 7999 please let me know!**

## *Links*

- RFC 7999: <https://tools.ietf.org/html/rfc7999>
- Summary and additional information:  
<https://github.com/tking/BLACKHOLE-BGP-Community>



***Thanks for RFC 7999 – Without **your support** this would never had happened!***