

1.0 / THE BNIX INFRASTRUCTURE

MORE THAN JUST THE SWITCHES



- →2021 project launched to renew the platform
- → Momentum to create platform that is aligned with international standards
- → Needs to be scalable and flexible to enlarge presence in Belgium
- → Not only switches. Introducing a new portal based on IXPManager and making the routeserver more robust





AS-IS

- → Current platform is a pure Layer2 construction: Peering VLAN Quarantine VLAN
- → Simple, effective and stable
- → Not easy to scale
- → Layer2 challenges (loops, Spanning Tree, broadcast storms)



2.0 / The new switches







TO-BE

- →Introducing EVPN/VXLAN as the ovelay network
- → No more trunks but routed links between the chassis
- → More 100 Gbps availability and future proof for more bandwidth (i.e. 400Gbps)
- → Testing has been done with Juniper QFX5120, but hybrid architecture with other routers or switches possible (EVPN/VXLAN is vendor agnostic)



ADVANTAGES

- → No more trunks but routed links. Byebye Spanning Tree!
 - → No more spanning tree but OSPF and BGP for redundancy
- → No more large chassis, but 1RU chassis that can be easily stacked using EVPN/VXLAN (lower footprint).
- → Easy expandable to other datacenters
 - → Difficult business cases
 - → Reseller remains the preferred formula
- → Multi chassis lagging ensures redundancy for Etherchanels



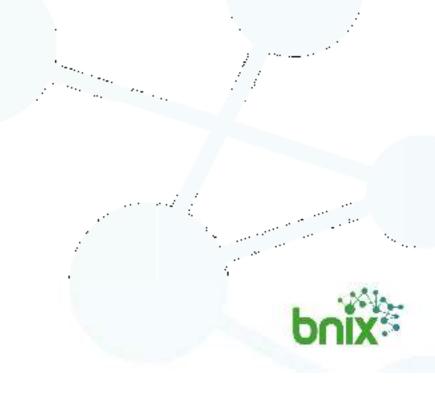
MIGRATION DATE?

→Order has been placed in july 2021

→ Problems in the supply chain

→ Delivery is foreseen for April 2022

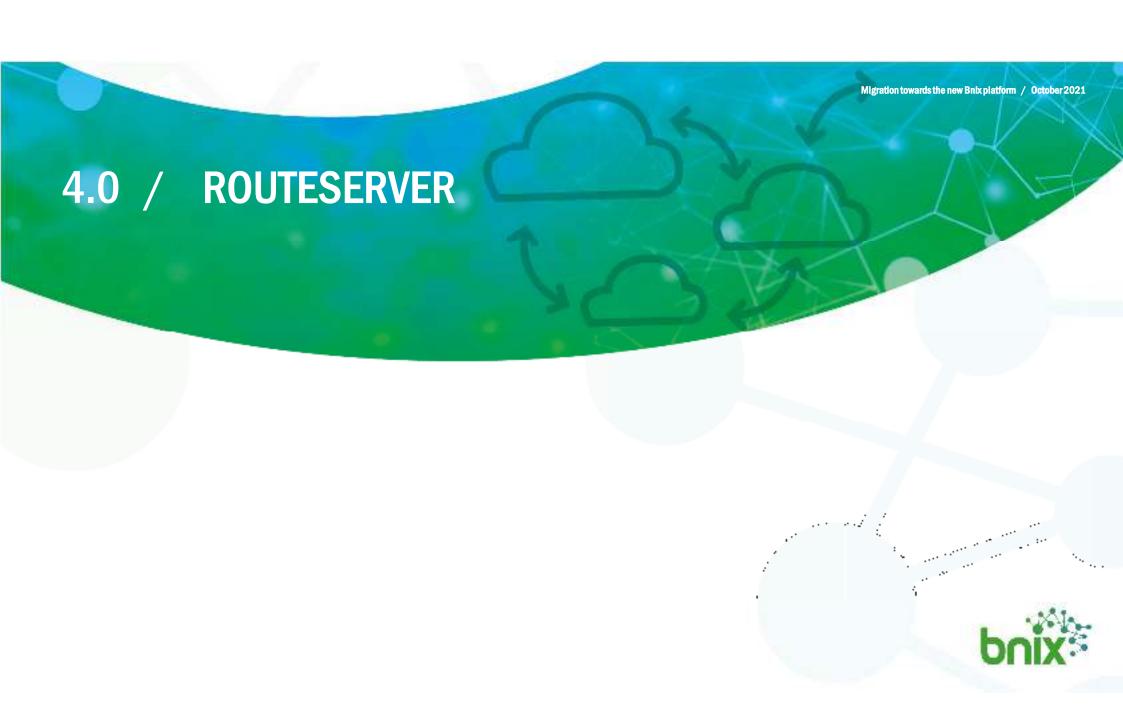
→ Hopefully May 2022 (fingers crossed!)



IXPMANAGER

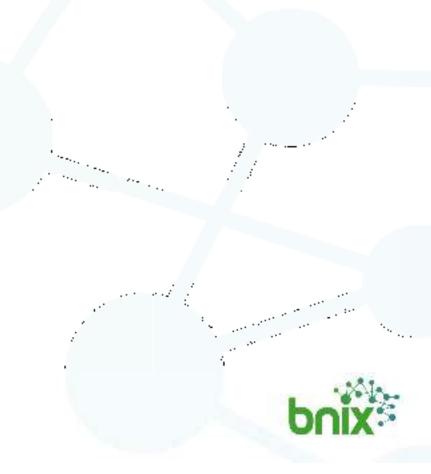
- → is a customerportal based on the international standard of IXPManager
 - →This is a webportal created by INEX and currently used at 176 IXP's
- → https://www.ixpmanager.org/
- → Introduces Smokeping, looking glass and last but least peer to peer traffic flow based on sflow
- → Currently in beta, but Go live foreseen in January 2022
- → Let's dive in the application and show you what it's about.





WHAT'S ON THE ROADMAP?

- → Upgrade Bird, the routing deamon
- →Introducing RPKI as an added filter
 - → Currently only IRRDB filtering is supported.
 - → Config will be pulled from IXPManager



5.0 / ENLARGE THE BNIX SUBNET



WHAT'S THE PURPOSE?

- → Currently netmask 255.255.255.128 is used or 194.53.172.0/25
- → We're ambitious ;-)
- → We will ask you to change the netmask to 255.255.255.0
 - → We will send out a communication with the details.



