

# MIGRATION TOWARDS THE NEW BNIX PLATFORM

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# 1.0 / THE BNIX INFRASTRUCTURE

MORE THAN JUST THE SWITCHES



1.0 / The bnix infrastructure

- 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 IXPManger and making the routeserver more robust



# 2.0 / THE NEW SWITCHES

SMALLER AND LEANER

2.0 / The new switches

## 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



2.0 / The new switches

## TO-BE

- Introducing EVPN/VXLAN as the overlay 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 Etherchannels



2.0 / The new switches

## 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!)

# 3.0 / NEW CUSTOMER PORTAL

INTRODUCING IXPMANAGER

## IXPMANAGER

- is a customer portal based on the international standard of IXPManager
  - This is a web portal created by INEX and currently used at 176 IXP's
- <https://www.ixpmanager.org/>
- Introduces Smokeping, looking glass and last but not 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.

# 4.0 / ROUTESERVER



## WHAT'S ON THE ROADMAP?

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

# 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.

# 6.0 / QUESTIONS?

