1.0 / INTRODUCTION

- Stefan Gulinck – Senior Network Architect and technical lead BNIX

- Agenda:

  - Realisations New platform

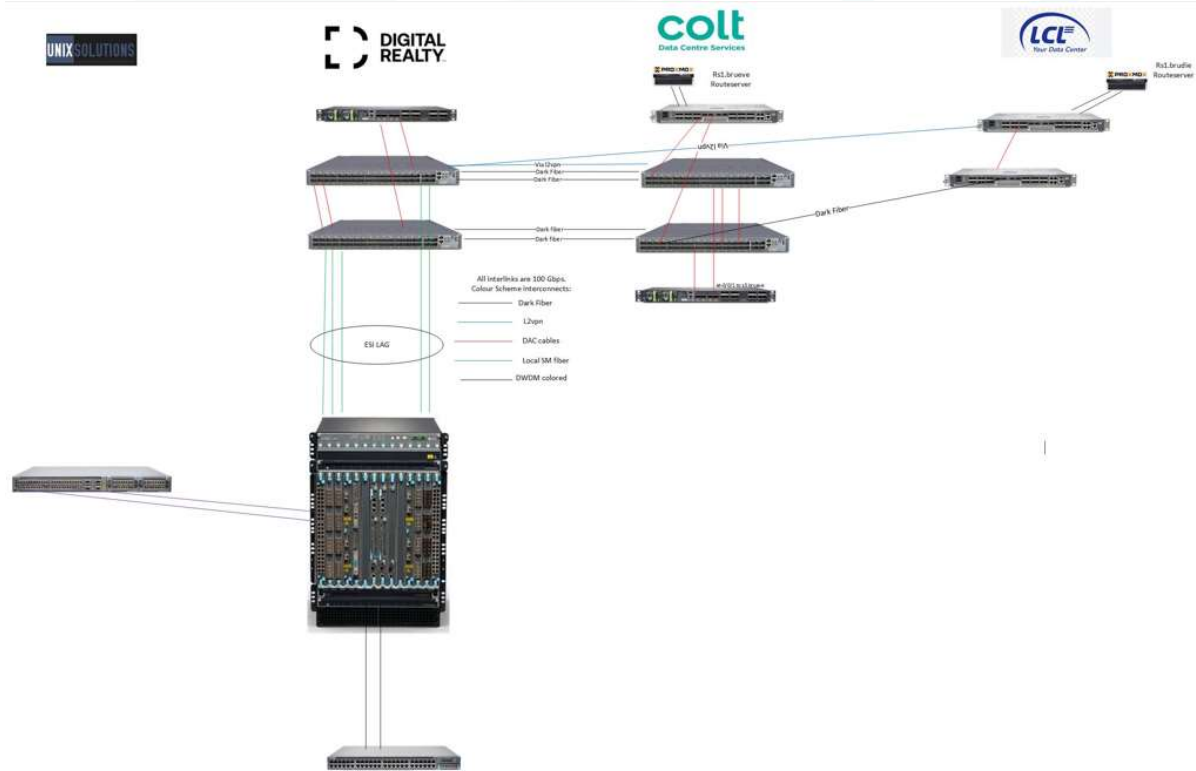 - Increased port security and MANRS

  - New at BNIX

2.0 / NEW PLATFORM

- LCL and datacenter Colt (formely Lumen) done

- Encounter of issues during migration
    - Bugs and strange handling of BUM traffic

- Migration Digital Realty (Interxion) on hold

- New connections are put on the new fabric

2.0 / NEW PLATFORM

2.0 / NEW PLATFORM TO DO

- Remove all ACX710 from the network and replace with ACX7024

  - Same OS (Junos EVO) and consistency in the network

- Upgrade the platform: new features and bug fixes

- Complete the migration of Digital Realty

- Complete validation of Juniper professional services

- Move to a stable and reliable platform

INCREASED PORT SECURITY

- To be completely MANRS compliant we introduce two things:

    – Fixed MAC address

    – More strict filtering and a Acceptable Use Policy

        - Not enforcable, but it helps everyone

INCREASED PORT SECURITY

- Fixed Mac address

  – The fixed MAC address was already introduced on ingress level

    - You can always opt for a statically assigned MAC when you replace a device

  – Since we know the destination MAC we are working on filtering this as well

    - Some cases on traffic destined for a MAC that is not behind the port

    - Amplified by the ACX/EVPN fabric

INCREASED PORT SECURITY

- Introduction of an Acceptable Use Policy

- Port Limitations:

   – Spanning tree & BPDUs: Incoming BPDUs are ignored (and dropped).

   – Broadcast traffic (destination MAC FF:FF:FF:FF:FF): Broadcast traffic, with the exception of ARP broadcasts, is dropped

   – Storm Control: No more than 50Mbps of the incoming traffic of each port can be unknown unicast, multicast or broadcast. Traffic above this level is dropped.

   – ICMP redirects: ICMP redirects are not allowed and dropped.

INCREASED PORT SECURITY

- The members are encouraged to implement the following directives:

  – Disable spanning tree on the BNIX port. Disable outgoing BPDUs and ignore incoming BPDUs (although no BPDUs should be received from a BNIX port).

  – Disable all unnecessary protocols. Take extra care with link-local protocols, esp. discovery protocols such as LLDP or CDP and VLAN propagation protocols such as VTP or GVRP/MRP.

  – If possible, terminate the BNIX connection on a L3 port rather than using a switchport and a SVI/IRB interface, and avoid using L2 switches between BNIX infrastructure and your L3 device.

- Extend the footprint of the BNIX

- Introducing an Apple Cache on the platform

- NAWAS will be connecting to the BNIX
  - The delivery of the 10Gbps connection is being done as we speak.

QUESTIONS?

Happy to answer questions during the networking part!