



APIX – APNIC 58

NZIX UPDATE

DAVE MILL



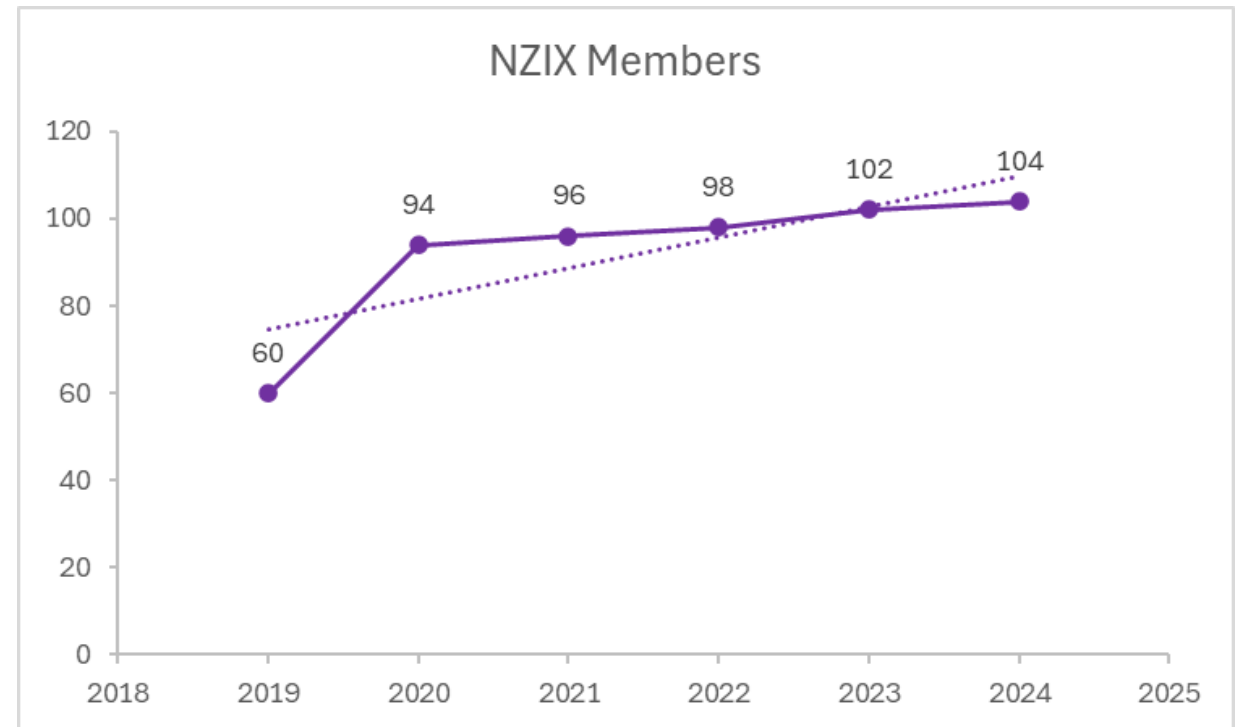
**NEW ZEALAND
INTERNET EXCHANGE INC**

Introduction

- We operate 3 IXs: AKL-IX, WLG-IX (here), CHC-IX
- We were founded in 2016 (had operated since ~2014)
- Founded by WAIA or IAA (Internet Association of Australia)
- Operated by IAA
- 5 POPs in AKL
- 2 POPs each in WLG/CHC
- 104 members

Membership Overview

- Growth rate
73.33% since 2019
5.77% since 2022
- 7 new members in the last financial year.
- IX breakdown;
94.2% on AKL-IX
14.6% on CHC-IX
16.5% on WLG-IX



NZIX

- Non-profit Society
- We are the biggest IX in New Zealand
 - Peer count
 - Traffic peak(s)
 - Volume
- Good member engagement
 - Popular AGM
 - Sponsor NZNOG
- Committee of 7 largely elected by the community

AKL IX Trends

AKL-IX	2018	2019	2020	2021	2022	2023	2024
Peers	70	77	90	94	96	101	92
Traffic Peak	60Gbit/s	98Gbit/s	178Gbit/s	278Gbit/s	392Gbit/s	525Gbit/s	705Gbit/s
IPv4 Routes	10,000	51,000	67,000	105,000	114,000	130,415	122,000
IPv6 Routes	1,800	24,000	35,000	45,000	48,000	57,120	63,500
1G Ports	15	10	8	6	3	0	0
10G Ports	60	75	91	83	85	87	87
40G Ports	0	0	1	3	3	1	1
100G Ports	0	1	8	15	24	29	32
Total Ports	75	86	108	107	115	117	120

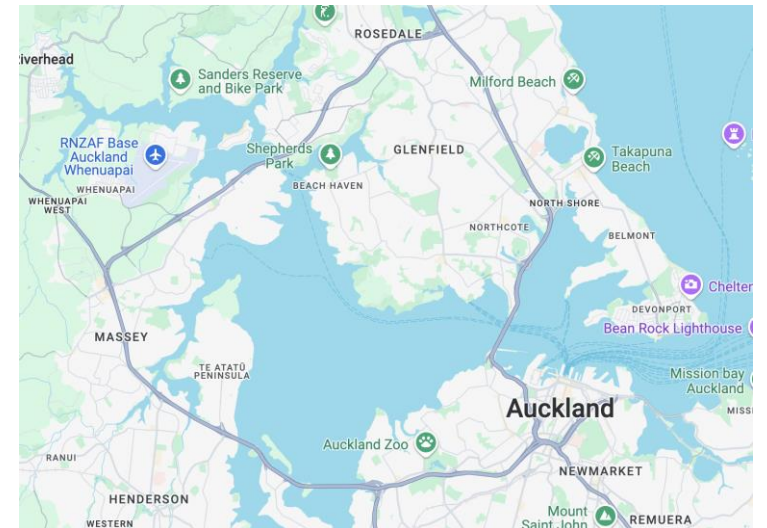
NZIX Exchange Recipe

Juuuuuuuust in-case you needed a refresher!

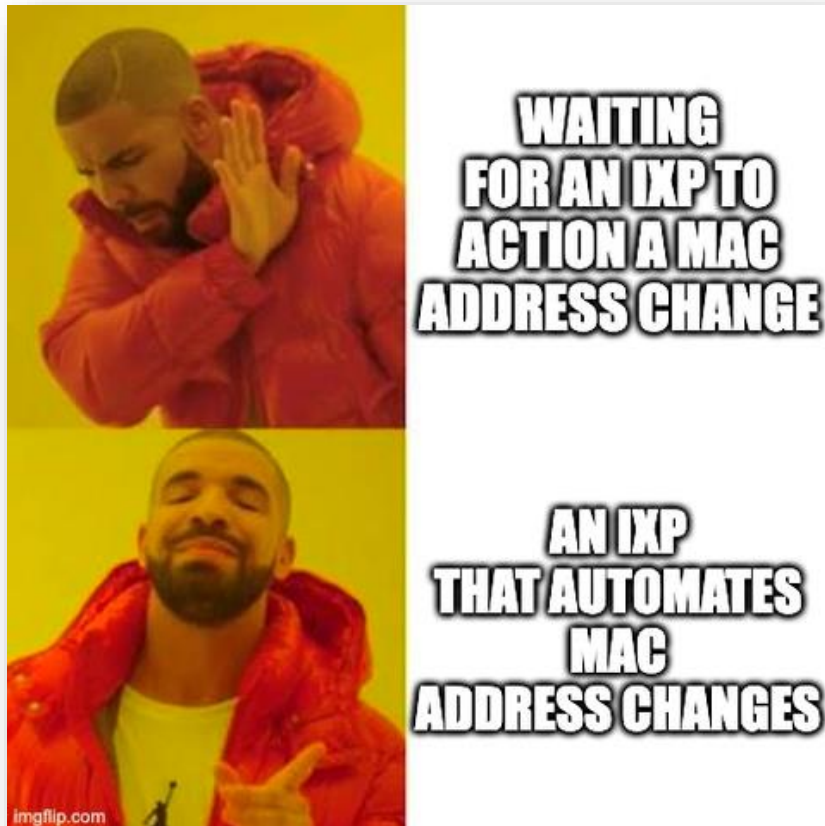
- **Core Network:** OSPF, MPLS + VPLS per exchange with RSVP-TE
- **Switching Hardware:** Extreme Networks
 - AKL-IX and WLG-IX: x870-32c (32x QSFP28)
 - CHC-IX: X690-48x-2q-4c (48x SFP+, 2x QSFP+, 4x QSFP28)
- **Optical:** FlexOptix & SmartOptics
- **Fibre Carriers:** OneNZ, Chorus and Lightwire
- **Route Servers:** Dell R640s /w Bird BGP Daemon v2.07 (RPKI Compliant, dropping invalids).
 - Route Server 1 updates at 2pm daily
 - Route Server 2 updates at 3pm daily

Recent Work

- New Supporting Infrastructure
 - Previously hosted in Australia by IAA
 - Now hosted by a local NZ provider on our own Kubernetes stack
- Recently built a 400G optical ring around Auckland
 - SmartOptics - 4x 100G – Muxponders
- New Website – <https://ix.nz>
- New Portal



Portal – Network Automation



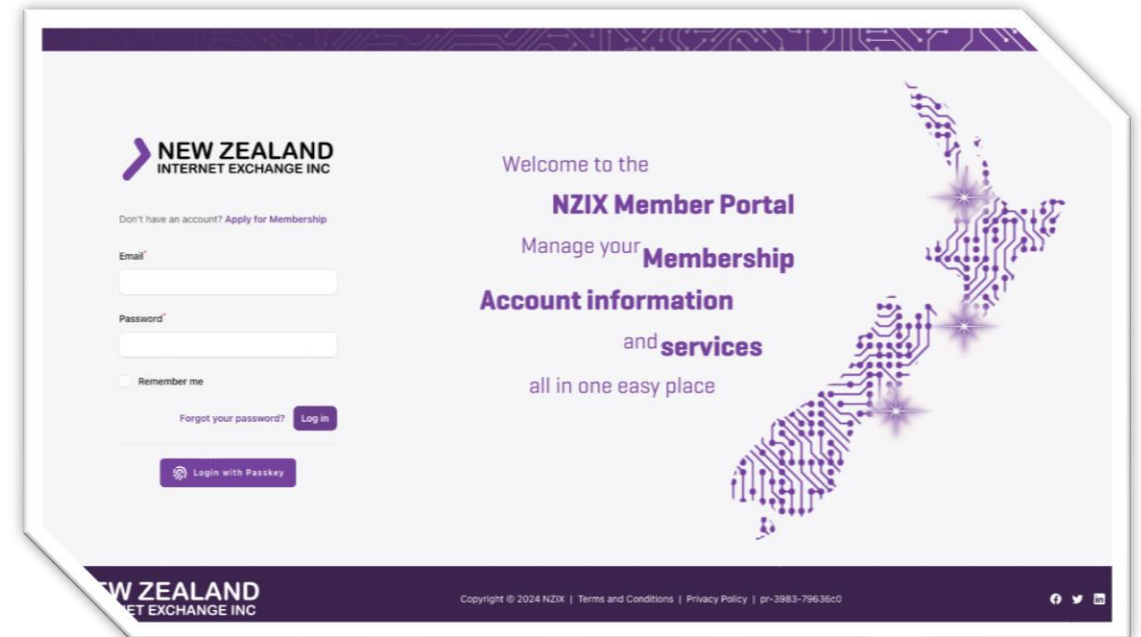
Matt Kobayashi, 2023



https://twitter.com/acontios_net/status/1679499010757783557

NZIX Portal Upgrade!

- Development on the new portal is progressing well; should be ready for deployment by September 2024
- Completed so far:
 - Branding/theming
 - Updated and validated import of data from the current portal
 - Payment gateway integration
 - Redesign of application form to streamline onboarding
 - EdgeConnect support
- Needs testing and cutover!



Website

NEW ZEALAND
INTERNET EXCHANGE INC

Members Portal

Home About Services Resources News and Events Contact

Peer with us for

Lower Transit Costs

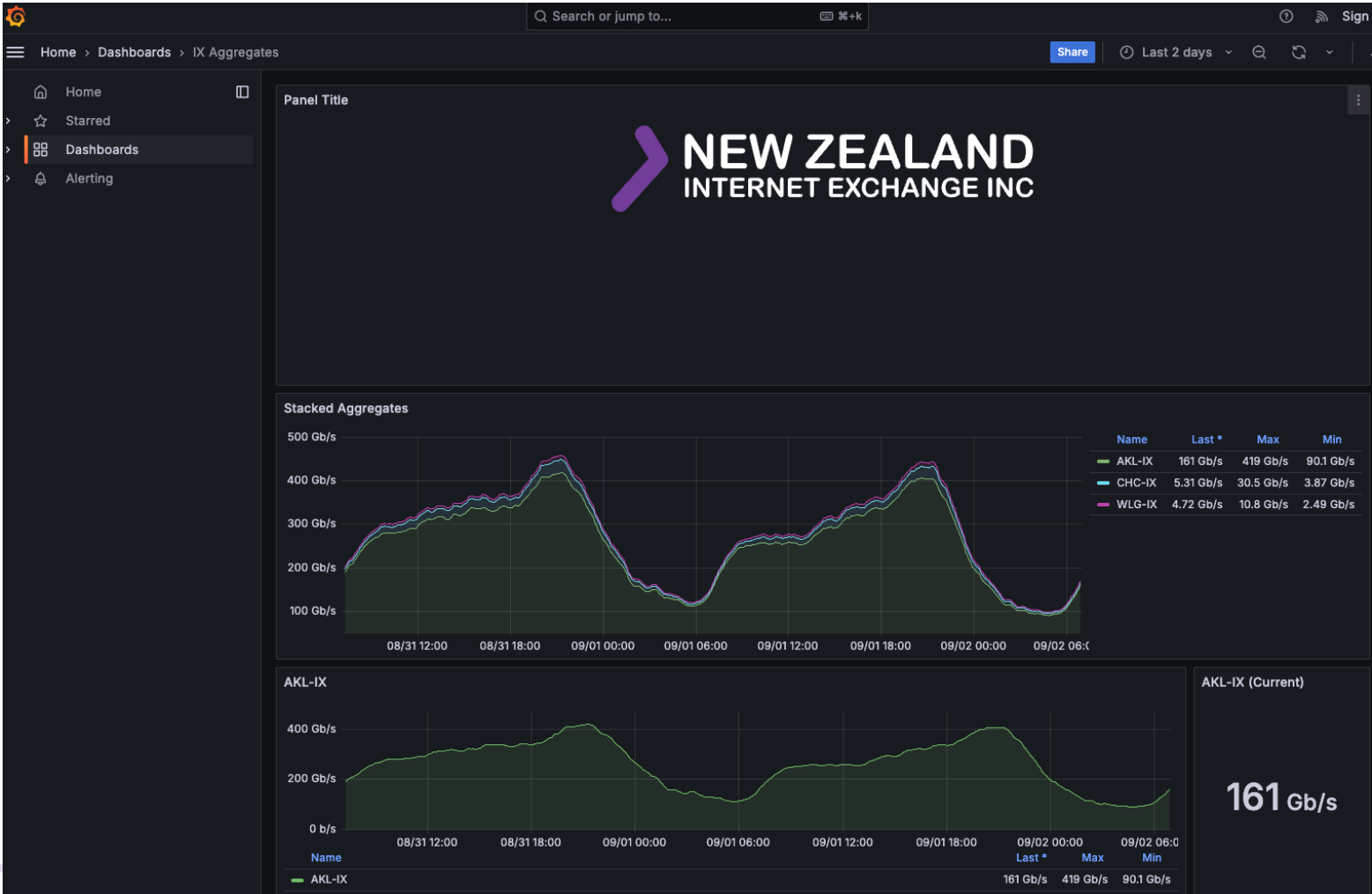
Improved Speed

Greater Reliability

Less Latency

MEMBER PORTAL NETWORK STATUS METRICS LOOKING GLASS

Metrics Portal



Looking Glass - Alice



NZIX
https://lg.ix.nz

ROUTE SERVERS

AKL-IX

rs1.akl.ix.nz
bird 2.0.7

rs2.akl.ix.nz
bird 2.0.7

NZIX - Looking Glass

powered by Alice, your friendly BIRD Looking Glass

SEARCH ON ALL ROUTE SERVERS



Search for Prefixes, Peers or ASNs on all Route Servers

DID YOU KNOW?

You can search for

- **Prefixes,**
- **Peers** by entering their name and
- **ASNs** by prefixing them with 'AS'

Just start typing!

Upcoming Plans



- Saving up money
 - 400G Core
 - 400G access ports?
- Vendor change and/or EVPN
- New POPs – AKL
- More integration of tech into website



Thank you!

Any questions?