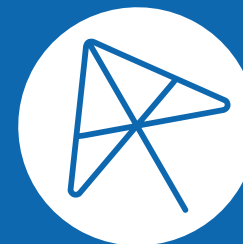


2021

ANNUAL REPORT



Internet
Association
of Australia

It was July 1995. Less than three percent of Australians were accessing the Internet, indicating that few anticipated its eventual, even colossal potential.

People and business were resisting this budding industry, and the use of email and webpages were the exception rather than the rule. Despite the minute up-take, State and Federal Governments were proposing heavy-handed regulation, similar to CB radio or print publications, which would inevitably crush its potential. Something had to be done. The future of the Internet hung in the balance.

A group of pioneers made up of the first dial-up Internet service providers, tech journalists, University enthusiasts, new information technology businesses, and many early-adopter users rallied together, and decided they needed to meet. Plans started forming, emails started flowing, and the vanguard of the Internet in Western Australia prepared for what would be the inception of an enduring Association.

The day of the meeting arrived, Saturday, July 22, 1995. 50 to 70 attendees arrived at DIALix – one of the largest Internet service providers (ISP) at the time, all motivated to promote Internet take-up and resist the impending Government regulations. Some knew each other, some knew of each other, but they all shared a collective vision that brought them together.

The meeting room was buzzing and the atmosphere thick with a sense of community, not only unified by impending hardship, but by a shared secret – that one way or another – they had all found themselves at the forefront of a new industry with unlimited potential.

As the meeting began, David Kitson – a journalist for Perth Sunday Times and administrator for Black Ice Technologies, began to speak and continued to convene and MC the meeting. As the different ISPs explained their issues with telecommunications access, it became clear that unprecedented regulation was not the only threat. The monopoly status of much of the infrastructure was a significant barrier to emerging players too. The meeting continued and the sense of community and urgency grew stronger in the room as it became more apparent that this was a battle they could not fight alone, but a war to be fought as an army.

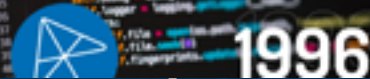
The meeting ended abruptly; the vanguard of WA was in full agreement that they needed the authority of a duly incorporated Association as soon as practical. The Western Australian Internet Association (WAIA), a constant advocate for better Internet policy, was formed.

Filled with anticipation, and driven by the need for immediate action, the interim committee set to work and set in motion an Association that would endure over time, committed to its members, advocating for equality, and going on to build the largest carrier neutral, not-for-profit Internet exchange platform in Australia.

OUR TIMELINE



First plans for an IX were devised as cost for sending and receiving one MB of data was **\$1.46**



WAIA's Inaugural conference for ISPs with a **100% satisfaction rating** from attendees.



WAIA chaired the Internet Industry taskforce in the fight against the email spam epidemic.

WAIA sponsors first Comm-IT WA event.

New office at the **Western Australian Innovation Centre in Bentley.**



1995



Association is formed under the name "**Western Australian Internet Association**".

First Internet based Association in WA.



First submission made to the Senate Select Committee.



WA-IX was formed through collaboration and equipment donations from iNet, Wantree and Omen.



Located in the QV1 building basement in Perth CBD.



iNet and Omen were the first two networks peering on WA-IX.



WAIA collaborated with several other professional bodies to form the **Information Communications and Telecommunications Alliance of WA (ICTWA)**.



WA-IX POP in Swiftel Communications Co-Location room in the QV1 building.



WAIA chaired the Internet Industry taskforce in the fight against the email spam epidemic.

WAIA sponsors first Comm-IT WA event.

New office at the Western Australian Innovation Centre in Bentley.




Sponsored the first **AusNOG** event in Sydney.





QLD-IX commenced operations.





2006





Host Organisation for **APRICOT 2006.**



2011




VIC-IX commenced operations.

2013

Joined **Euro-IX** as a remote member.

SA-IX & NSW-IX commenced operations.



First livestreamed AGM.







ACT-IX & AKL-IX
commenced
operations.



2014



Launch of **40Gbps**
and **100Gbps**
peering services.



2017

APRICOT 2020
APNIC 49

Hosts of
APRICOT 2020.


Appointment of first ever **CEO**

CNC-IX commenced
operations.

Rolled out RPKI

Life Under Lockdown
webinar series released.

Chorus EdgeConnect launched



2020

2016



Internet
Association
of Australia

Name changed from WAA to
Internet Association of Australia.

NEW ZEALAND IAA became a founding
member of NZ-IX Inc.

Began sponsorship
of PeeringDB.




2019



IAA launches the Unplugged
event series. A casual networking
sundowner to connect with peers
and other industry professionals.

**Unplugged
with IAA**



2021

Upgraded to a fully diverse national backbone.
Opened North Sydney office.
Became a company limited by guarantee.
WLG-IX commenced operation.

**Sponsors of
APRICOT 2021.**

2021
APRICOT
APNIC 51





MESSAGE FROM THE BOARD / CHAIR

DAVID HOOTON

What a year it has been for the Association! I could not be more proud of what the team have achieved in the past twelve months in the face of the challenges that we have all experienced as a result of Covid-19.

The major focus of the Board in 2021 was to restructure the Association to enable the board to focus on strategy rather than operational activities. We have developed internal business processes and policies, commissioned inter-capital network upgrades, moved the Association structure to a company limited by guarantee, established the IAASystems@AusNOG program to encourage and develop the involvement of women in the industry, and worked with NZIX on the establishment of their Wellington IX.

Although many things have happened over the past year, I would like to mention a few that have been the most significant. Narelle continues to do a great job as CEO; the association has for the first time since I've been involved with it stood on its own two feet without Board involvement in day-to-day matters. This year was the first year that we have operated under a formal, structured, planned and pre-approved budget allowing our operational teams to function efficiently within their delegated authorities. The Sydney team have also moved into a new office in North Sydney. Although COVID has limited the time they can spend in it, they're eager to get back in there when restrictions permit.

We have developed a regulatory and policy team to represent member views to Government and the Media. The team have done an excellent job attending forums, roundtables, writing submissions, raising the profile of IAA and its members for policy decision makers.

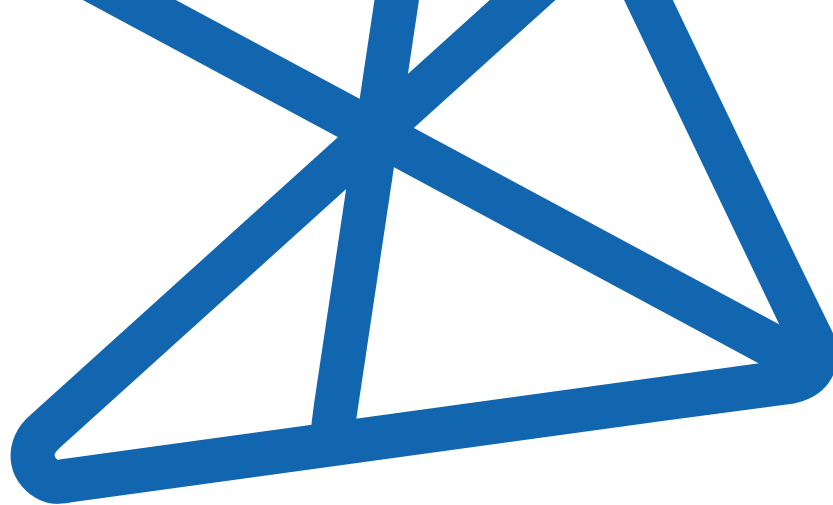
Thankfully, IAA is a virtual organisation and we have been able to be agile when responding to the impacts of Covid-19. We have had some fantastic online events, with a couple more to come before the year has ended and have had to postpone others – our AGM being one of them along with the AusNOG conference. Network traffic growth as a result of COVID lockdowns has been quite considerable adding around an extra 100G of traffic as businesses adjust their staff to working from home.

With all the extra traffic, 100G ports have become the new 10G. Across all our IX's, we've seen a 2.6Tbps increase in traffic across our 100G ports, with a total of 23 new 100G ports purchased in the last twelve months and an increase in our number of peers too.

Next year, we look forward to extending our peering footprint into the regional areas, actively focusing on adding more content and representing our members to the public and government decision-makers.

I wish you all the best with the year ahead.

David Hooton
Chair, IAA Board



IAA BOARD

2020 - 2021

David Hooton (Chair)

Elected by Corporate Members
Elected 6 September 2017, re-elected 4 September 2019, re-elected 27 October 2020
Member, Membership Committee
Member, Finance and Audit Committee
Member, Regional IXA POPs Committee

Matthew Enger (Secretary)

Elected by Professional Members
Appointed to casual vacancy 10 January 2020, elected 27 October 2020
Member, Membership Committee
Member, Technical Review Committee
Member, Finance and Audit Committee
Member, MSA/MA Review Committee
Member, Regional IXA POPs Committee

Daryl Collins

Elected by Corporate Members
Elected 6 September 2017, re-elected 4 September 2019
Member, Technical Review Committee

Matthew McDonough

Elected by Professional Members
Elected 4 September 2019
Member, Technical Review Committee

Matthew Moyle-Croft

Elected by Professional Members
Elected 4 September 2019, re-elected 27 October 2020
Member, Finance and Audit Committee
Member, MSA/MA Review Committee
Member, Regional IXA POPs Committee

Brett O'Hara

Elected by Corporate Members
Elected 11 September 2019, re-elected 27 October 2020
Member, Membership Committee
Member, Finance and Audit Committee
Member, Regional IXA POPs Committee

Richard Thompson

Elected by Corporate Members
Elected 27 October 2020
Member, MSA/MA Review Committee

Nate Garr

Elected by Corporate Members
Elected 27 October 2020
Member, MSA/MA Review Committee

BOARD ATTENDANCES

Director	Eligible	Present	Apologies	Absent
David Hooton	11	11	0	0
Daryl Collins	11	10	1	0
Matthew Moyle-Croft	11	10	1	0
Matthew McDonough	11	10	1	0
Matthew Enger	11	11	0	0
Brett O'Hara	11	11	0	0
Richard Thompson	11	10	1	0
Nate Garr	10	6	4	0

Table covers the period from AGM 2020 - AGM 2021

STRATEGIC PLAN

OUR MISSION

The mission of Internet Association of Australia is to lead and support members and the internet industry.



OUR OBJECTIVES

• Advocate on Matters of Relevance to Members and the Industry

We will build alliances with like-minded organisations, to work together to represent the interests of the industry.

The Association will develop industry relevant policies and position statements, and demonstrate thought leadership through white papers and annual reports.



• Provide Peering Exchange Infrastructure and Services for Members

We will develop a clear architecture evolution plan, develop an automation plan, implement a new portal, plan for new locations through business case assessment, identify new content partners and work to increase content offering and grow and enhance member services.



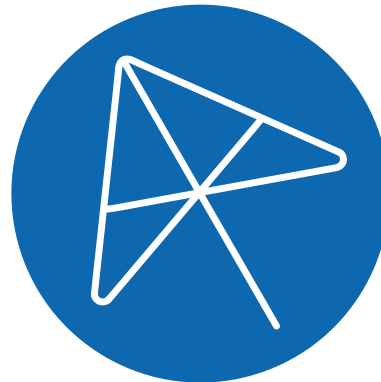
• Facilitate Education and Informed Discussion

We aim to conduct industry events and social functions, sponsor or support relevant industry events and participate in the advisory boards for relevant education programs.



• Run the Association in the Best Interests of Members

We will grow our membership numbers, as well as improve the engagement with our members through improved branding and outward communications, a new website and a review of our staff and internal policies. We will continue to run the Association well, through monitoring finances and reviewing our governance.





MESSAGE FROM THE CEO NARELLE CLARK

Well, wasn't that quite a year! We as an industry should be extremely proud that we have kept the wheels of our society and economy turning by enabling connectivity throughout. It has been extraordinary to watch everyone upgrading to meet the demand, rearranging networks to ensure reliability, and generally supporting the end customer to make sure we could all function as a society. Never before have we seen just how important connectivity is to our lives. The pandemic has certainly focused attention on the importance of the internet to society, and it is something we take tremendously seriously.

We also managed to complete our round of intercapital bandwidth expansions giving us redundancy and diversity across the country, upgrade individual switches everywhere, retire an old black diamond switch, and institute new route servers and RPKI everywhere. So while we've had plenty of time to reflect when stuck at home, we've not wasted time either. We've added some new content services and increased the number of root servers on the exchanges. Hopefully we will expand to new locations in Australia – pandemic willing – in 2022.

As a member-driven, not-for-profit entity we are in a unique place to both set standards and respond to the need for high quality services. To that end we sought your support to move from Western Australian associations law to federal corporations law, and gained it at the SGM held in July. We are progressing through the transition now, and hopefully will have it complete before the AGM.

Our advocacy work has progressed brilliantly with the addition of a policy officer to the team. It has meant that over the year we have been steadily turning out submissions and meeting with regulators to put the point of view of industry, and to emphasise the impact of regulation on smaller players.

Over the coming year, we expect to further extend the quality and reliability of our services and increase our level of automation. Our relationship with NZIX is solid, and we are deepening that partnership with new services and locations. It, too has increased capacity across Auckland and we are close to activating a new exchange for them in Wellington.

Our online events have gone extremely well throughout the year and we have benefitted from some excellent Australian and overseas presenters. I was also invited to give a training session to government employees on 'How the Internet Works' which assists in our quest to be recognised as an authoritative partner in the technical landscape. This dreadful pandemic has prevented us from getting together much for in person catch ups, however!

I want to thank everyone for your support for our organisation, and thank the staff and board for their tremendous support. We have a great team and a great future.

Narelle Clark
Chief Executive Officer

OUR STAFF



Narelle Clark
CEO

Although widely known as an Internet enthusiast, she also enjoys a good game of netball and delicious chocolate.



Fatima Dauda
Management Accountant

Fatima enjoys watching Korean dramas on Netflix and eating chocolate when the kids are in bed.



Nick Pratley
Tech Team Lead

In his spare time, Nick indulges his passion for coding and loves anything with blinky lights.



Jemma Goddard
Account Officer

Thanks to study and young kids, it is a rare that Jemma has spare time, but when she does she loves a good Netflix binge.



Aaron Chidiac
Peering Engineer

Aaron is a self-proclaimed, avid gamer, mediator and prefers a traffic engineered approach to the fridge.



Kitty Hibble
Admin Team Lead

Kitty enjoys travelling, dabbling in property development, doing yoga and spending time with her young children.



Emily Gallarde
Digital Marketing Assistant

Emily enjoys hiking, spending time with her family, and is a self-professed lover of all things Harry Potter!



Washif Ahmed
Peering Engineer

As a self-professed Technophile, Washif describes himself as loving novelty in his approach to all things.



Tanzia Hewer
Executive Assistant

One of her most favourite ways to spend time is traveling, good wine and photography.



Nitika Midha
Policy Officer

When Nitika is not thinking about internet policy for work or her thesis, you'll find her either trying to learn about random historical periods or spending time in nature.



Marcus Knight
Full Stack Developer

In his spare time, Marcus enjoys reading and light PC gaming.

THE YEAR THAT WAS

Despite facing numerous lockdowns, we have seen great progress across many projects this year.

ON THE TECHNOLOGY FRONT

- QV1 clean out and site consolidation
- Removal of Sydney and Melbourne BDX8
- Expanded our 100Gbps offerings across every major IX
- New Datavault DC in NZ for NZIX
- New compute clusters installed in Sydney and Perth
- Firmware upgrade across peering and content networks
- Completed RPKI rollout and route server automation across IXA and NZIX
- Replaced Looking Glass
- Completed the project to increase our intercapital bandwidth to improve redundancy and diversity

ON THE ORGANISATIONAL FRONT

- Board strategic planning session
- Board Governance training
- Investment portfolio
- CLG transition approved by board members
- Maturity and growth of NZIX
- Digital Marketing Assistant and Policy Officer appointed increasing advocacy and member engagement



THE YEAR AHEAD

The coming year will see more expansion and the removal of obsolete platforms.

PLANNED

- Launch of new website
- Portal redesign and rebuild
- Launch WLG-IX
- NSW-IX ring expansion to 800Gbps
- Replacement of OOB network
- Route server upgrades
- Site expansion/upgrades to WA-IX and VIC-IX



TRANSITIONING TO A COMPANY LIMITED BY GUARANTEE

This year, we reached another milestone in our history. Members voted, and we commenced the transfer from an association incorporated under Western Australia law (Associations Incorporation Act 2015 (WA)) to a company limited by guarantee under Commonwealth law (Corporations Act 2001 (Cth)).

We began the process with an initial member communication inviting members to participate in a member consultation held online on March 30 2021, ending the process with the final votes being cast during the Special General Meeting held on July 28 2021. We are happy to report that the required majority of members voted in favour of the transition, and on the 1 October 2021 the Internet Association of Australia was registered with ASIC as a Public Company limited by guarantee.

Over the years, both our network and member numbers have grown significantly, and our membership cohort consists of national members across all membership classes. The transition to a company limited by guarantee has many benefits for our association including overall better governance, constitutional certainty, legal clarity, a widely accepted structure, and clarity of rights and obligations of the association. Although these benefits are significant, the most important is that our governance will now better represent the interest of members across Australia.

Although our governance is changing, be assured that we will continue to acknowledge and celebrate our West Australian roots, our rich heritage of advocacy, and continue to provide the best member-run, carrier-neutral peering network in Australia.

WEBSITE OVERVIEW

OUR NEW WEBSITE



We are proud to launch our brand-new website.

We embarked on the journey to create this website as there was a need to combine our two separate websites into a single cohesive one – a one-stop shop for all our members and potential members to connect with us.

What started off as a collection of ideas and wishes, our new website is truly something we are proud of. Over the past eight months, a dedicated project team has worked tirelessly with an external agency to design, create, and test it. Members should see significant improvements in clarity and usability with everything much easier to find.

The process consisted of weekly meetings, countless discussions and emails, an abundance of ideas, and most importantly, teamwork!

Although there were times during the process that were less than smooth sailing, the determination, collaboration and commitment from our team has turned this list of wants and ideas into reality.

We would like to extend our thanks and appreciation to all the staff members involved, and further extend our thanks to the Board for supporting this project.

Enjoy exploring and interacting with our fantastic new website.

SPONSORSHIP

Every year, we proudly support a number of different events, programs, and organisations. From the AusNOG conference to PeeringDB, we continue to invest in initiatives that we feel add value to the internet community within Australia.

WiTWA

- If you can see her, you can be her! A mission-driven, not-for-profit Association providing a framework for women in technology. IAA is a sponsor of WiTWA as it provides representation and support to women in the technology industry, an imperative and welcome contribution.

APRICOT

- The Asia Pacific Regional Internet Conference on Operational Technologies is a key annual forum held across nine days consisting of seminars, workshops, tutorials, and other forums. All events during the conference are intended to provide Internet builders in the region with an opportunity to hear about new technology and learn from their peers and leaders in the Internet community around the world. IAA sponsors APRICOT because it is an excellent source of regional intelligence and expertise, growing the talent across the Asia Pacific region.

AusNOG

- The Australian Network Operators Group is a community of network operators that conducts an annual two-day event providing quality content and a face-to-face networking opportunity for Australian network operators. IAA sponsors the annual AusNOG event as it is unique in bringing the Australian networking community together. This event has continued to grow in popularity as the programme offers technical and operational information delivered by high quality national and international speakers.

Peering DB

- A public website best known for being the go-to site for interconnection data, IAA is proud to sponsor PeeringDB. It provides a free, user-maintained database, designed to facilitate the exchange of information about peering networks. Users can see networks that are peering, the locations where they are peering, and help you assess your interconnection possibilities





IAASYSTERS @AUSNOG

This year we launched our IAASystems@AusNOG program - a program designed to support and encourage women in the Internet industry.

As avid sponsors and attendees of the AusNOG conference, we have noticed declining participation rates from certain sectors of our industry in previous years. Our Association has a proud heritage deep-seated in advocacy, giving us a foundational drive to create change and cultivate a more inclusive Internet industry. To achieve this, we created the IAASystems@AusNOG program.

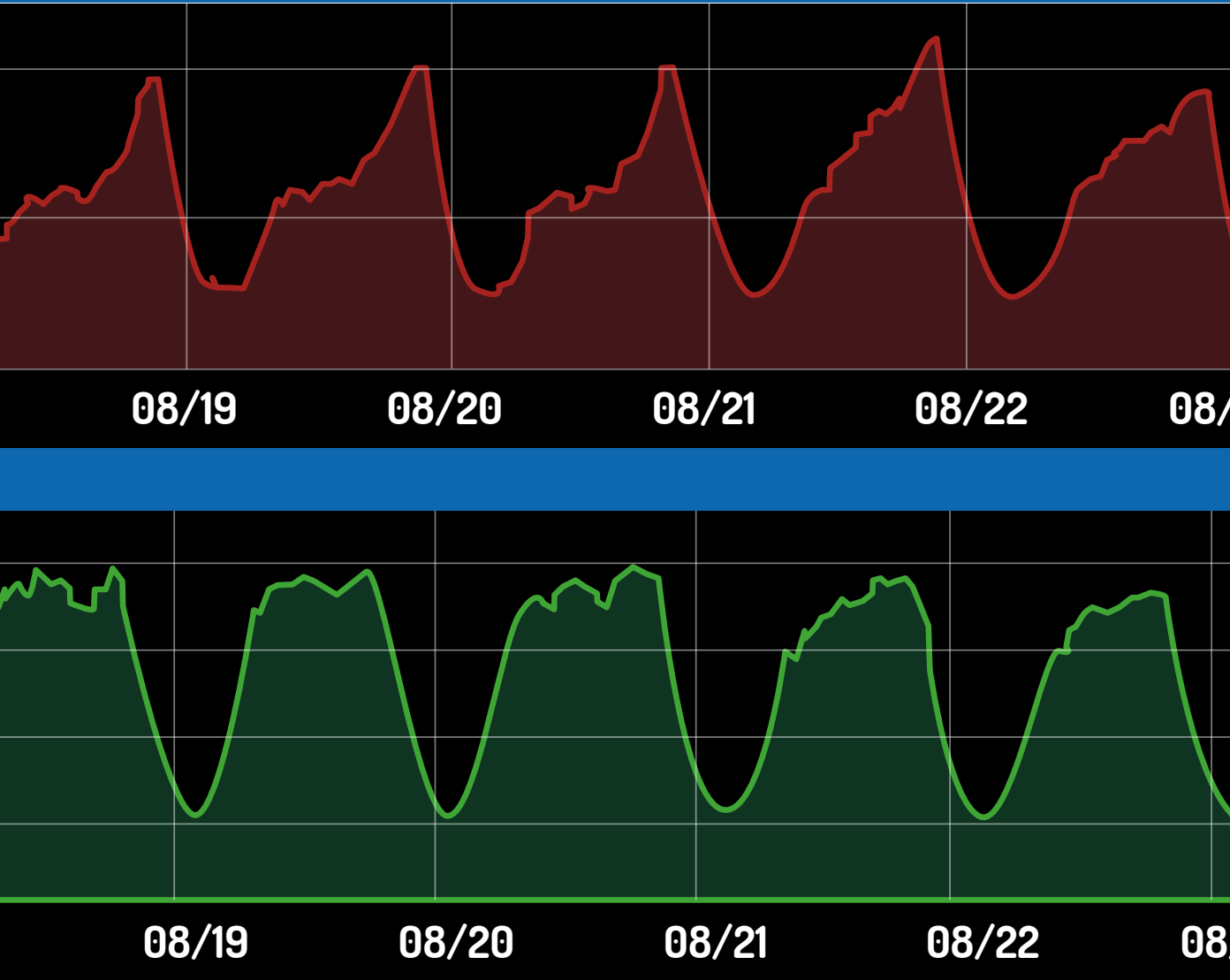
Based on the international systems.org and systems@ietf programs, IAASystems@AusNOG provides ten sponsored attendees starting their careers in the internet industry the opportunity to attend the AusNOG conference and make the most of the opportunities that come with it, in addition to attending our IAASystems@AusNOG workshop.

The IAASystems@AusNOG workshop is another stand-out IAA event offering targeted technical and presentation skills training in addition to a career planning session. Delivered by prominent industry professionals, this workshop will help to boost the attendees knowledge, skills and confidence.

We wish all the sponsored attendees a wonderful time at both the AusNOG conference and our workshop. We hope that this experience will be the foundation for a long and exciting career in the internet industry.

Shortly after the announcement of the program, Covid-19 reminded us that it can still shake things up in the blink of an eye. The workshop has been rescheduled in line with the AusNOG conference twice and will now be held in April 2022.

WITHSTANDING THE PANDEMIC



Along with the rest of the world, we had hoped that the pandemic would end promptly, but were bitterly disappointed. The network upgrades we completed last year kept us in good shape to withstand the series of lockdowns we all endured. Our IX metrics have shown each lockdown in turn, with a noticeable jump reflecting the different events, including the Premier's daily updates!

Our daily traffic graphs show a distinct change in shape, reflecting the shift from business networks to consumer as work from home orders came into place.

Change in Morphology - pre and post lockdown traffic statistics

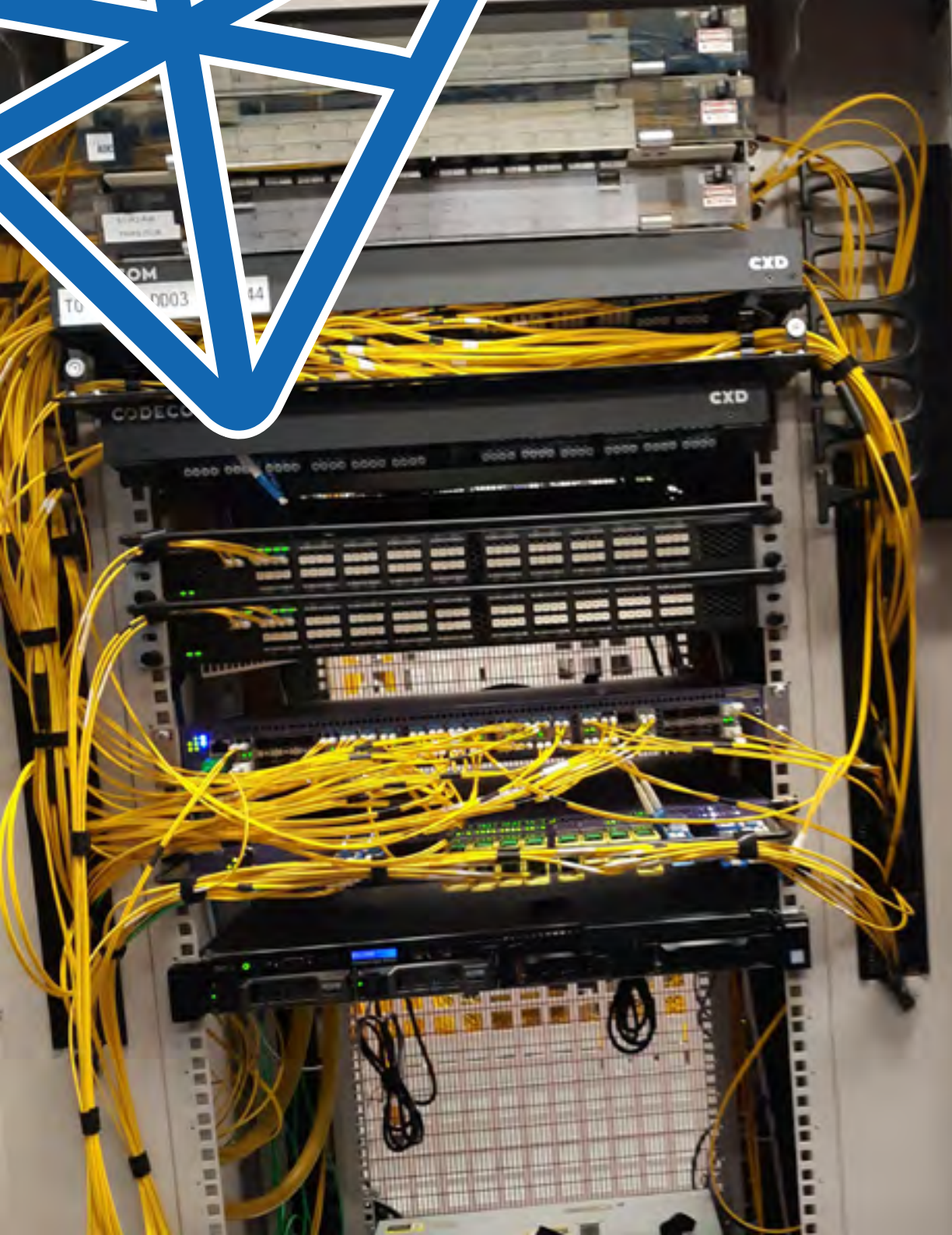


We also suffered the impact of supply chain delays caused by the closure of factories around the world. Again, good planning by the tech team ensured we weren't affected when optics became hard to find.

A bigger issue was in the logistics of getting projects complete when snap lockdowns prevented anyone from leaving their house, let alone catching a plane to install something! Clever use of remote hands, good documentation and just being plain flexible meant we eventually got things done. Patience was certainly key, and we genuinely thank members who had to wait for new connections or saw upgrades rescheduled more than once. Thankfully, no major issues arose, merely inconvenience.

On the topic of inconvenience, keeping track of the various restrictions and permits required has been quite a challenge! At one stage we were even looking to set up a collaboration across the industry to implement a Covid-19 Rapid Access Testing system. Given how unpredictable things have been we may yet see this in place. Who knows?

Unfortunately, too – it's not over yet! Should you have any questions or need further information about how we are managing the delivery of your services, please contact us for further information.



TECHNICAL REPORT

We started the year with 36 POPs in service (including those operated on behalf of the New Zealand Internet Exchange, NZIX) and decommissioned one (Vocus DC3) in Victoria when Vocus ceased operations on the site. NZIX has similarly grown, and we assisted them in commissioning the new Wellington exchange WLG-IX, and a POP at Datavault DC in Auckland.



OUR PLATFORM AND SYSTEMS ARE STRONGER

Better Tools In Place to Support Members

- New looking glass installed - Alice LG
- New route server Software Bird 2.0.7

RPKI Fully Implemented

- Route validation in place

Network Upgrades and Updates

- Decommissioned Pipe DC3
- Inter-capital upgrades
 - NSW-QLD – Completed 4x10G
 - NSW-VIC – Completed 4x10
 - VIC-ADL – Completed 2x10G
 - ADL-PER – Completed 2x 10G
 - ADL-SYD – Completed 2x10G
- BDx8 switches replaced in Sydney and Melbourne



AND WILL CONTINUE TO STRENGTHEN INTO THE FUTURE

This year the Board also approved our architecture evolution plan, which we are in the process of implementing. Future network upgrades planned are:

- New out-of-band network
- NSW-IX ring upgrade to 800Gbps
- VIC-IX 200G ring expansion

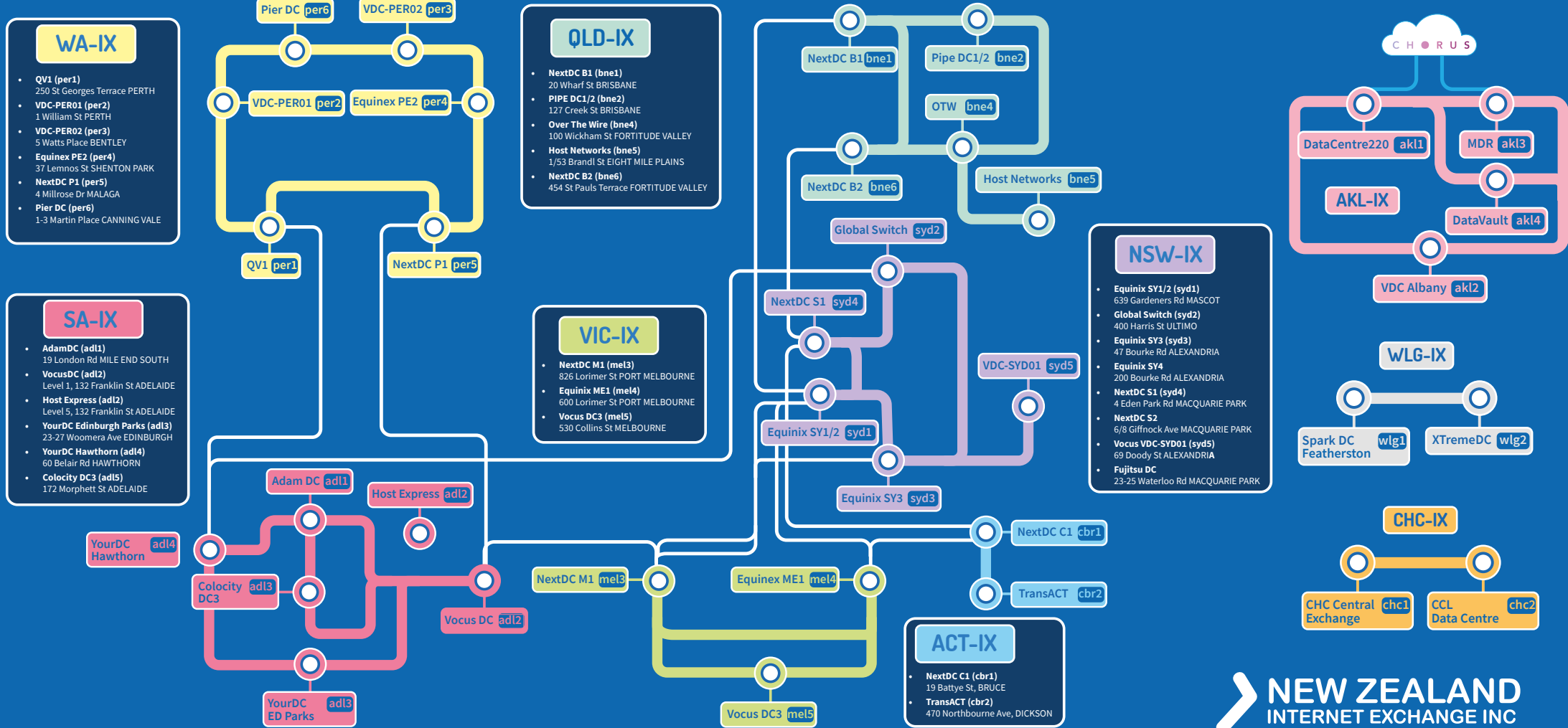
New Member Portal to be Released

- Complete phase 1 beta of new portal, with go live 4Q21
- More automation in phase 2:
 - MAC address updates
 - Automated LOA creation

More Content and Services Coming

- 100G Facebook caches in Brisbane and Melbourne completed, Perth in train
- I-Root server live
- Google peering on VIC-IX

OUR NETWORK





MEMBER PRODUCT PORTFOLIO

NETWORK PRODUCTS

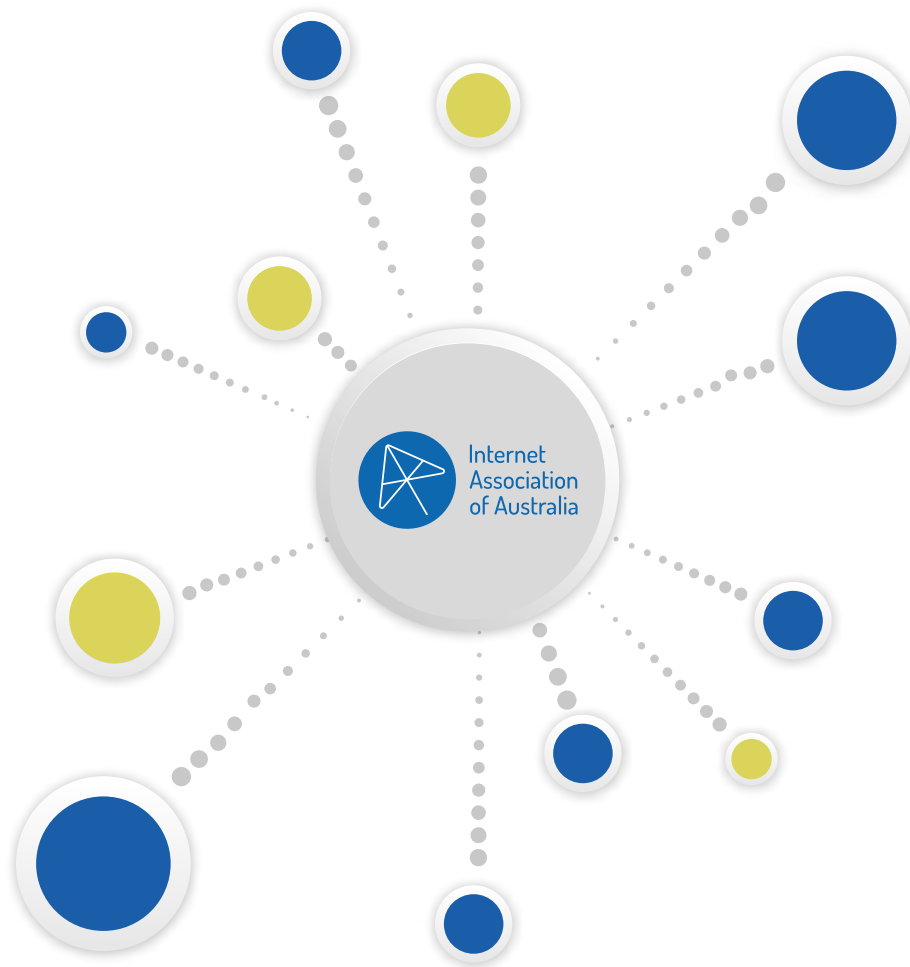


INTERNET PEERING

VIRTUAL LEASED LINE (VLL)

CLOUD SERVICES

INTERNET PEERING



IAA operates Australia's largest not-for-profit, carrier-neutral peering exchange – IX Australia. When you choose to peer on our network, you are joining a community of other like-minded organisations who want to be part of a more equitable interconnection.

What is Peering?

Peering is all about making connections and improving throughput in a cost-optimal way. It is the process by which Internet networks interconnect at Internet Exchange Points (IXPs), to mutually exchange traffic.

Peering offers many benefits including latency reduction, backhaul optimisation, and improved efficiency with the added benefit of lowering your connectivity costs.

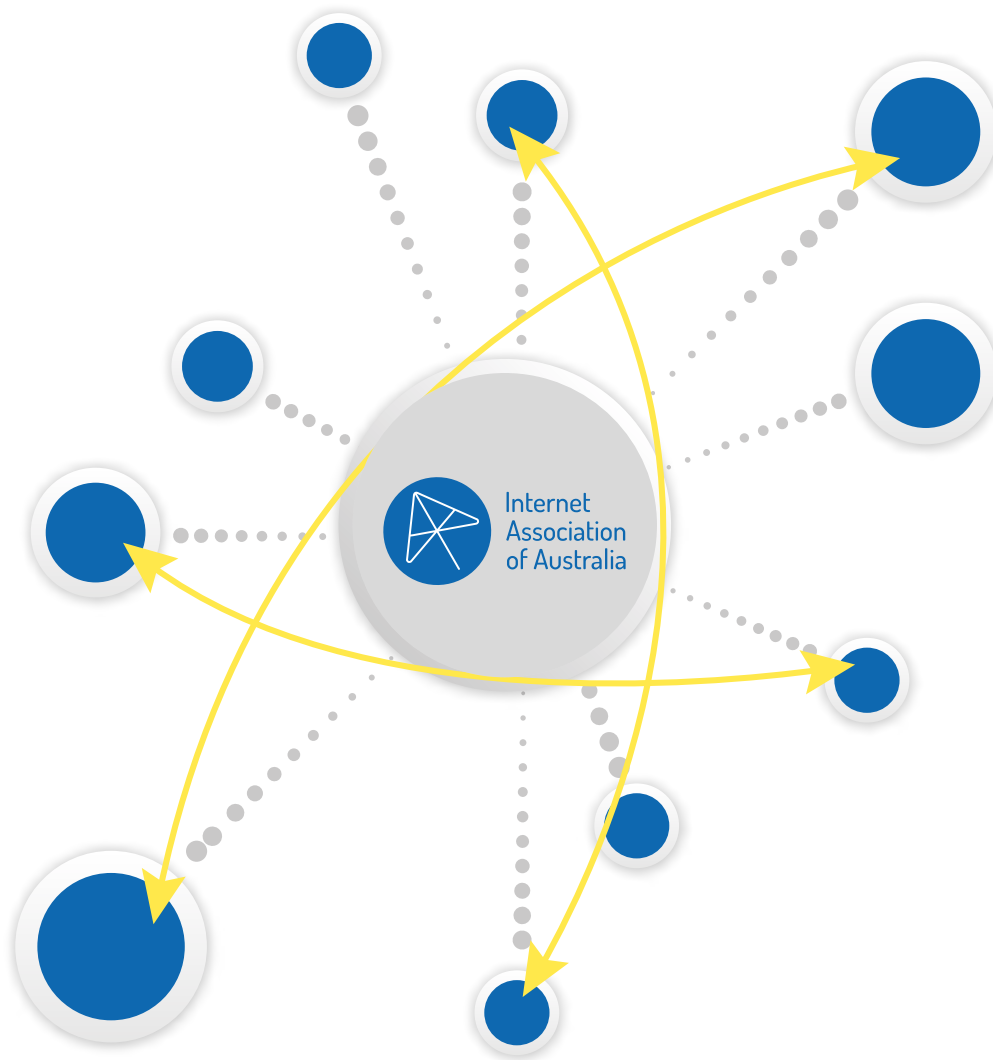
Designed to flatten the hierarchy of Internet connectivity, peering makes for a more open and equitable Internet.

Our Network

The Internet Exchanges IAA hosts operate across more than 30 Data Centres nationally, with IXPs located in Adelaide, Brisbane, Canberra, Melbourne, Perth, and Sydney.

We co-locate our equipment in data centres to offer port speeds of 10Gbps, 40Gbps, and 100Gbps as onramps to our network.

VIRTUAL LEASED LINES



As a peer on our network, you have the option of establishing a dedicated high-speed, point-to-point connection across our national network with other peers, and we call it Virtual Leased Line (VLL).

This service enables you to connect to other members, content providers, or simply have your peering ports connected directly across our network fabric.

How does a Virtual Leased Line work?

VLL provides the means to communicate privately using a scalable and high-speed data network between other IX peers over a single physical provisioned Ethernet Interface of 10Gbps or higher.

When you connect with a 10Gbps connection, 5Gbps is reserved for your peering traffic allowing you to build five free scalable point-to-point links in a single state, capped at half of your port speed. Using our iVLL service, you can establish point-to-point connections across Australia, leveraging our national backbone network.

CLOUD SERVICES



Add to your connectivity options by accessing your preferred Cloud provider using your existing IX Australia port. Cloud Connectivity uses advanced MPLS technology to offer you a dedicated link to connect to your cloud provider via a trusted organisation.

This service also provides the flexibility to scale your network speeds depending on your business needs at a higher speed and a stable latency across the country.

Cloud Connectivity has the potential to be a cost-effective solution that allows users to focus on their core business rather than being impeded by costly Information Technology (IT) constraints.

How does Cloud Connectivity work?

Cloud computing is a dense cluster of computers working together and sharing resources despite appearing to be one computing resource.

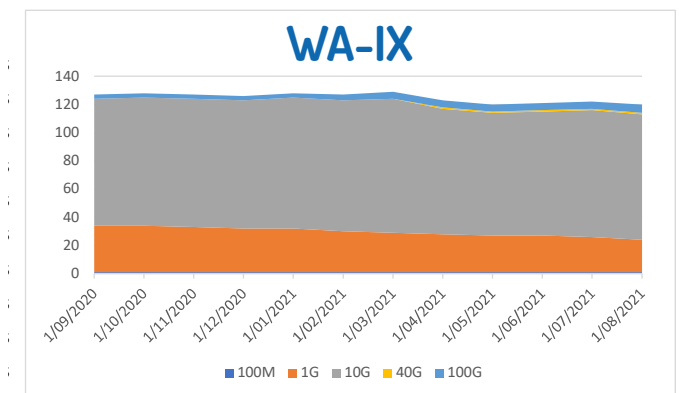
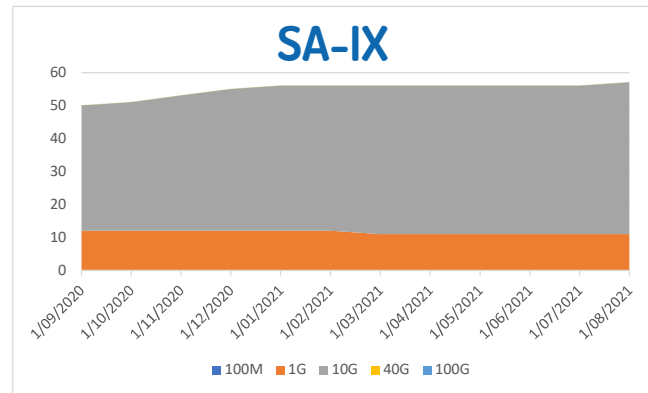
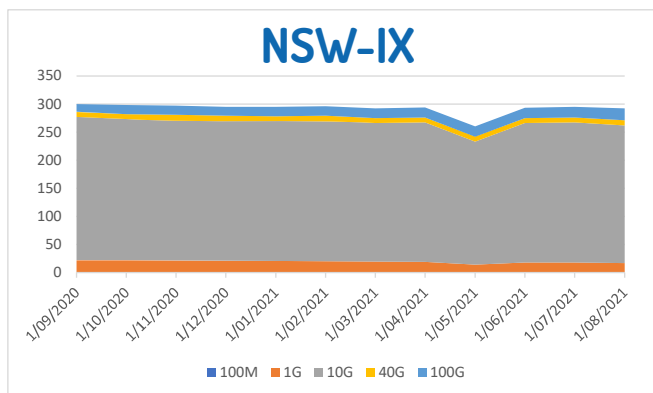
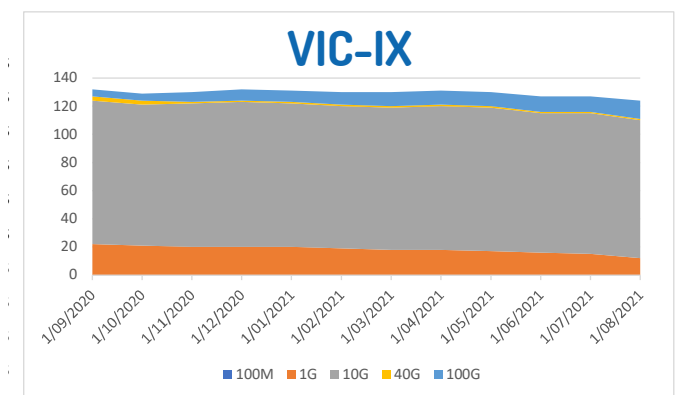
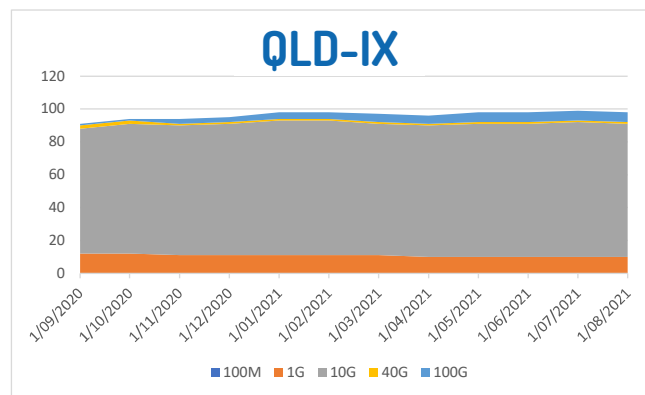
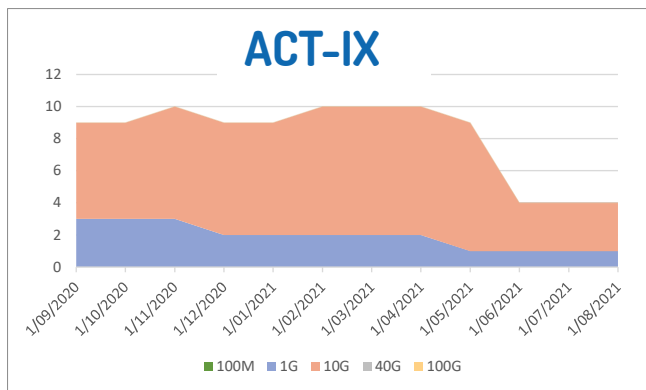
It works in an on-demand style delivering the different types of resources you need. Resources include: compute, databases, and storage; giving users access to a plethora of IT solutions to better suit your business needs.

Service Details

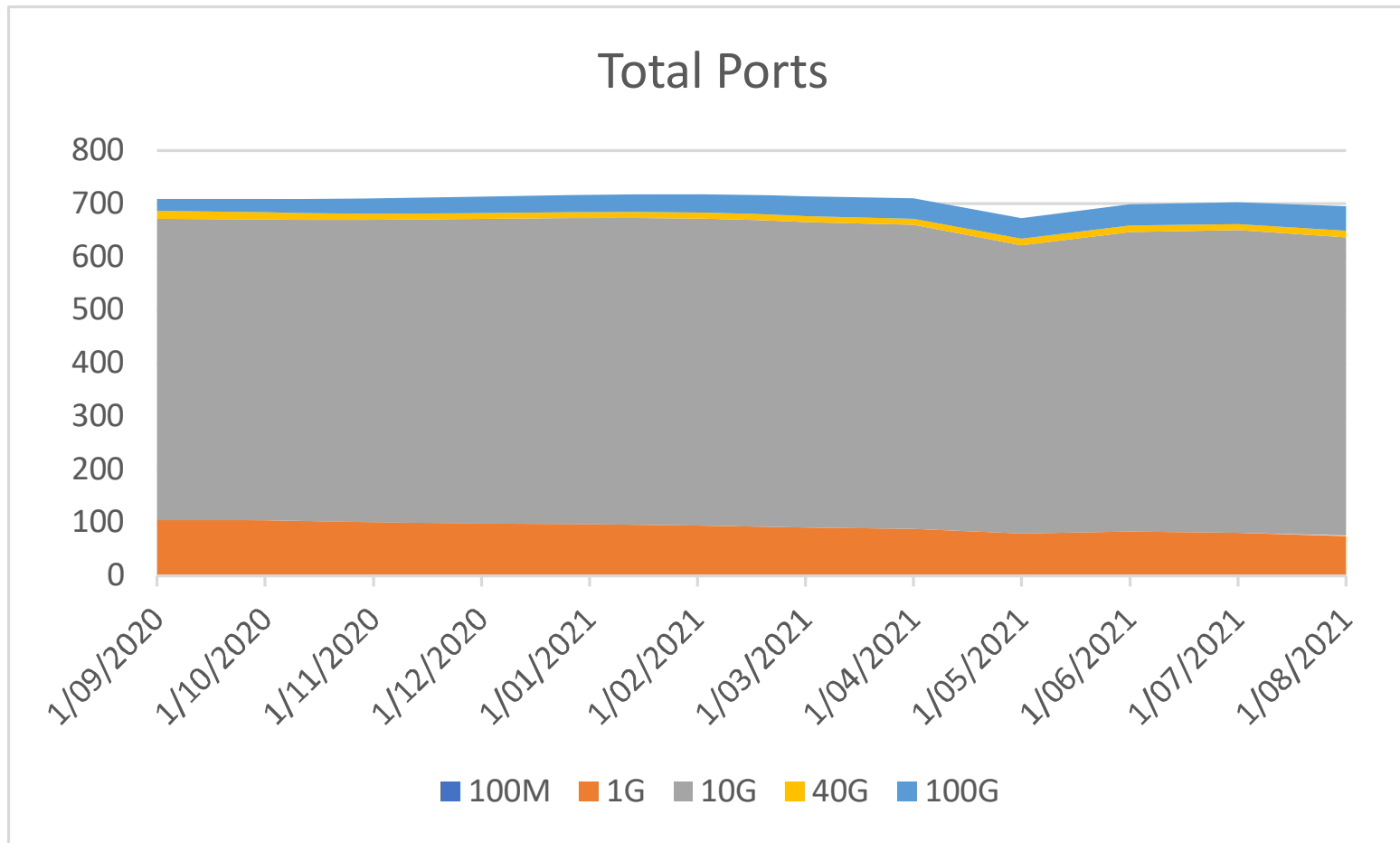
This service is available at speeds starting from 50Mbps with additional speed options ranging from 100Mbps to 500Mbps in 100Mbps increments on a month-to-month basis.

To access this service, members must have an active IX Australia peering port of 10Gbps or higher.

IX STATISTICS

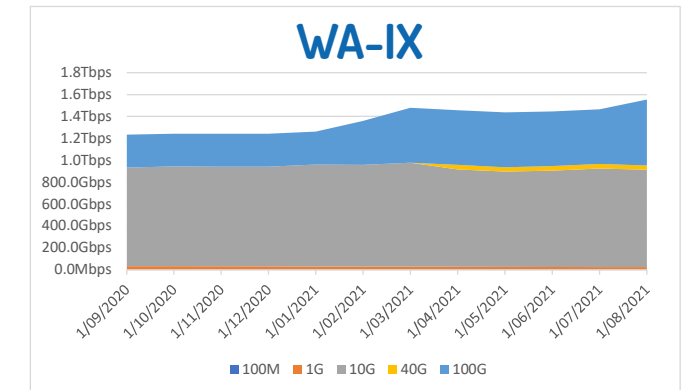
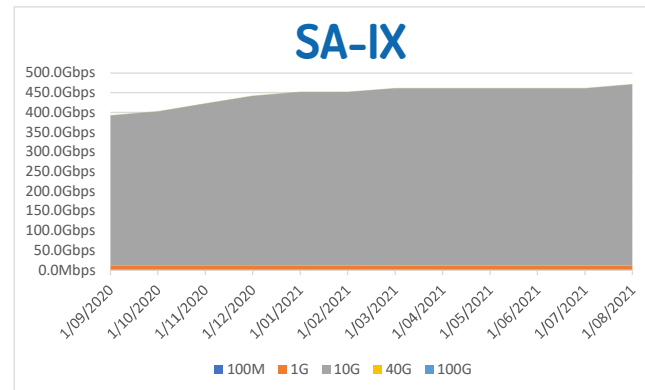
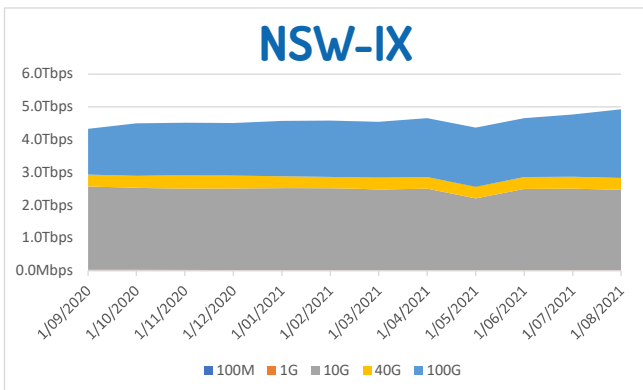
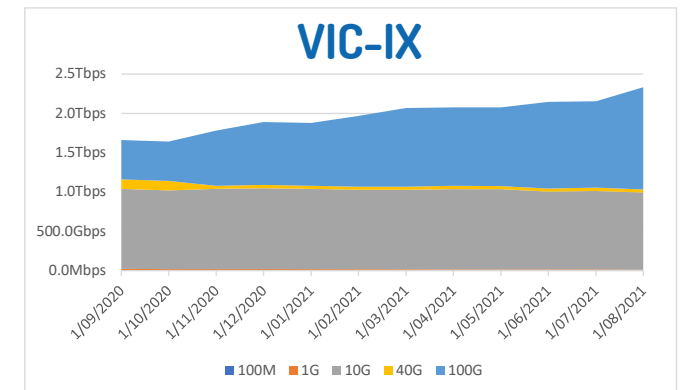
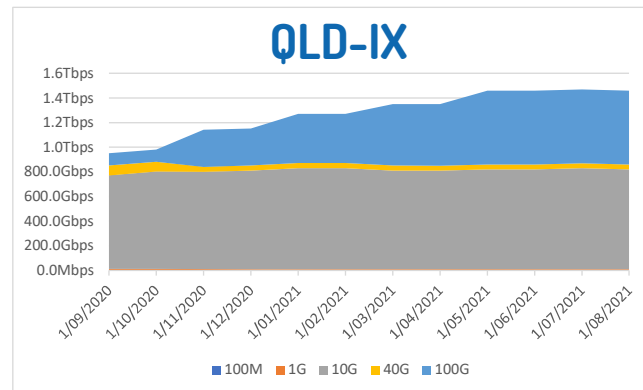
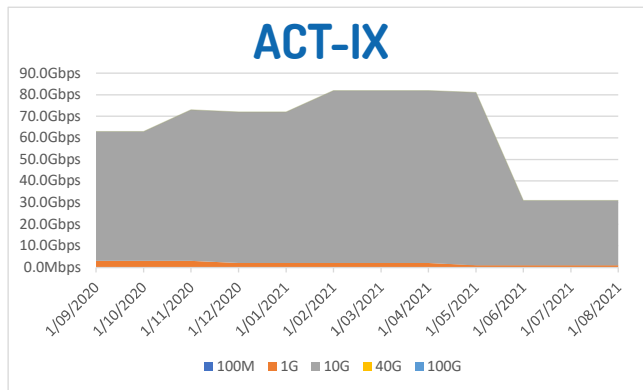


TOTAL PORT COUNT FOR EACH IX

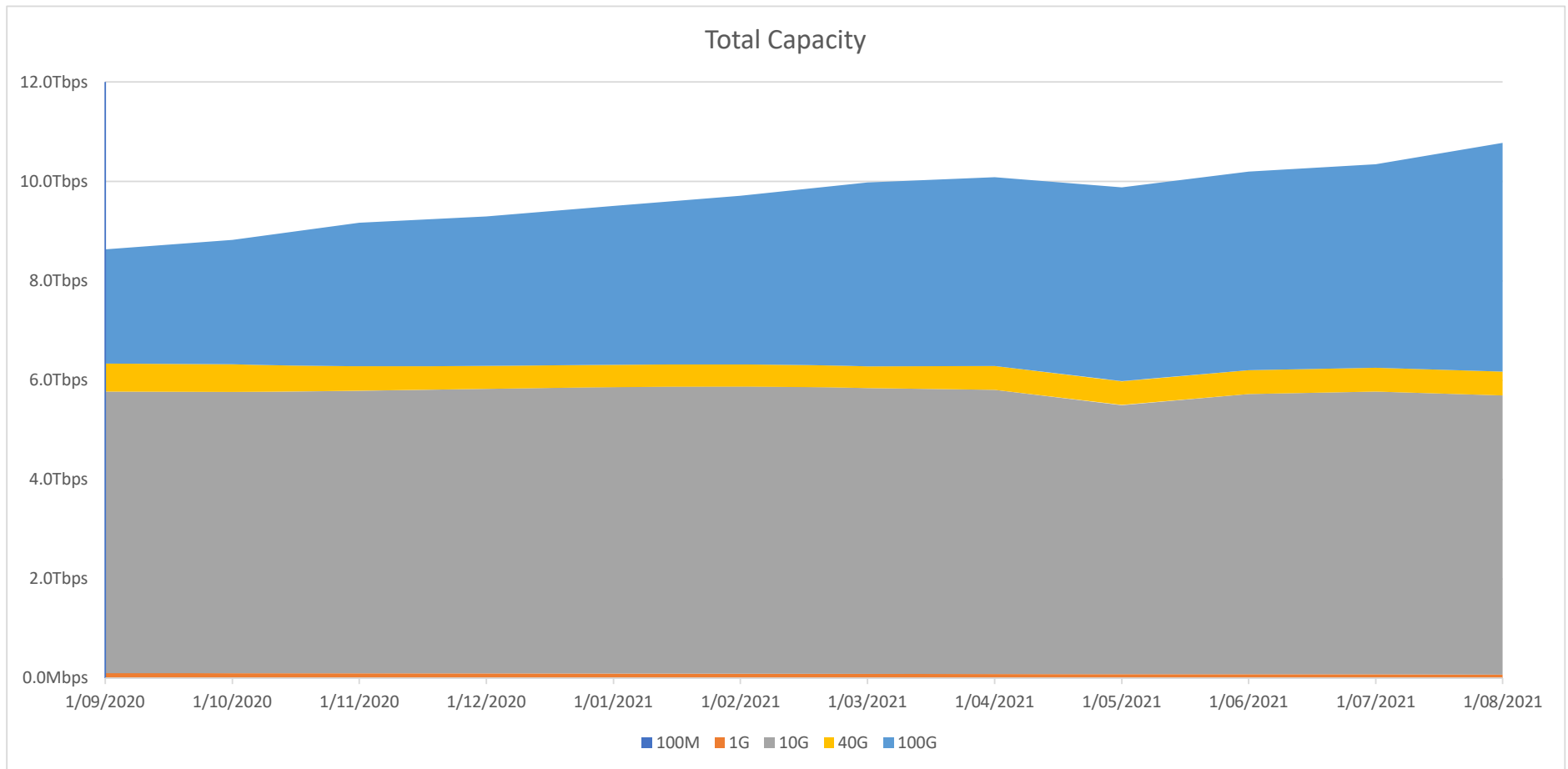


With the rise in 100Gbps ports, total ports are moving to a new normal and smaller port sizes are on the decline.

IX STATISTICS



EACH EXCHANGE SAW SUBSTANTIAL INCREASES IN THE PROVISIONED PORT CAPACITY



TOTAL CAPACITY ACROSS THE EXCHANGES

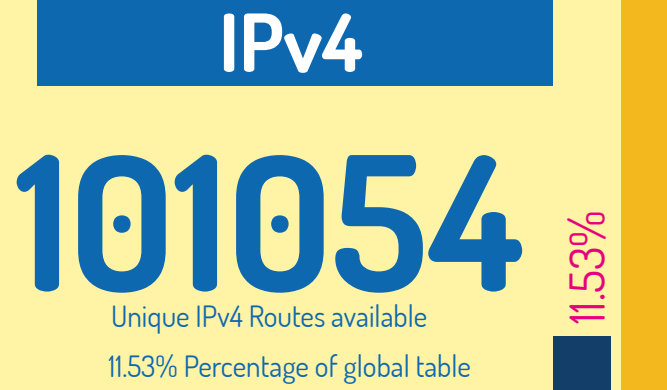
IAA

THE NUMBERS

418
MEMBERS

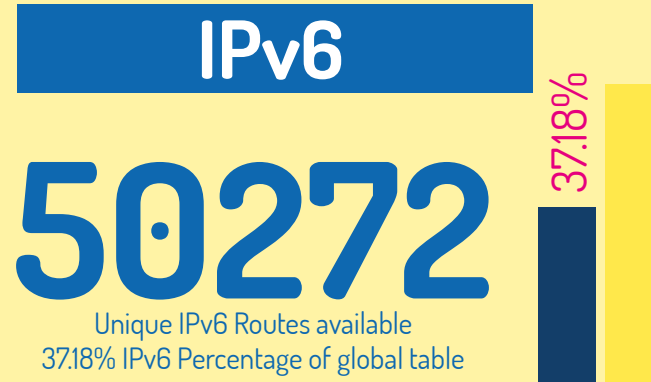
350
PEERED ASNs

695
TOTAL PORTS

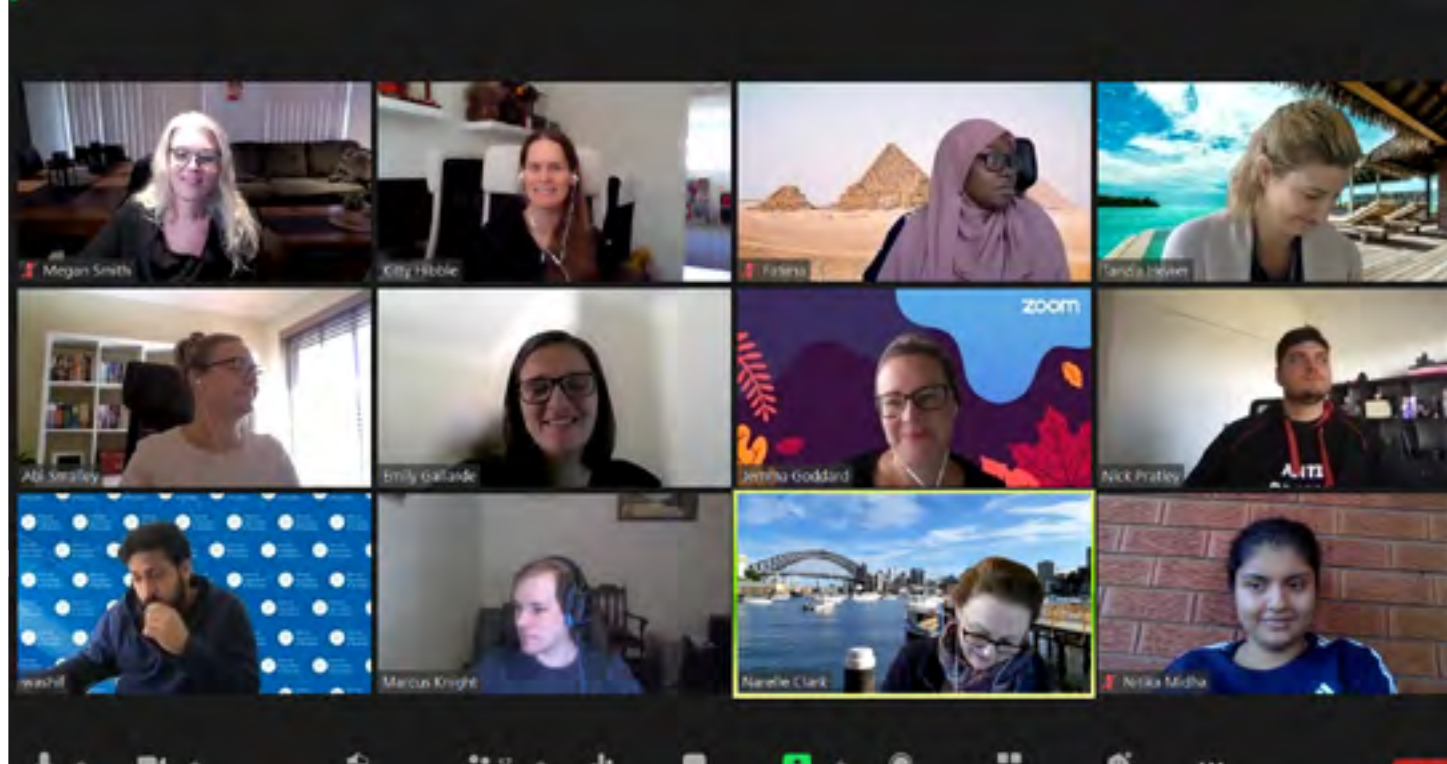


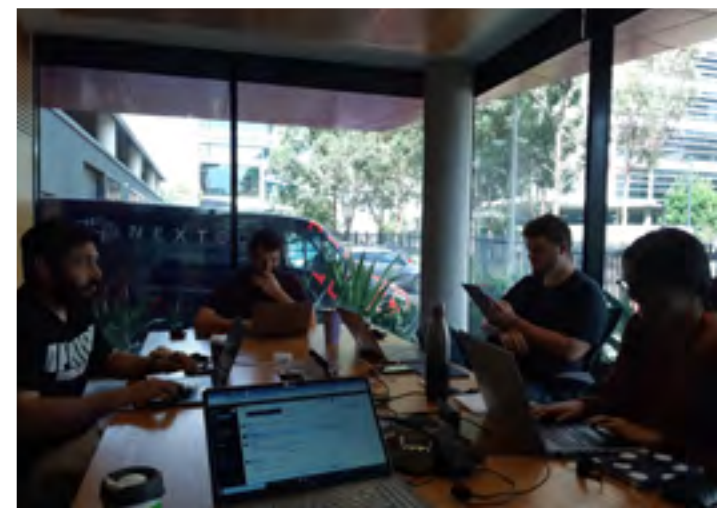
2
COUNTRIES

48
SERVICEABLE
LOCATIONS



9
STAND ALONE IXes





Over the past year, we've held some great events that have received overwhelmingly positive feedback from both staff and members.

Events make up an important part of our association, as they allow us to provide information, education, and support regarding issues that are of relevance and importance to our members.

Enjoy some of the highlights from our past events.

APIX

We participated in a panel discussion on small city IX's and gave an update on our growth for the Asia Pacific Internet Exchange association meeting.

THE INTERNET 2021 AND BEYOND – August 2021

In this joint event with the ACS Narelle Clark took us through her reflections on the Internet's technical and regulatory history and its future directions. Attendees sent numerous messages of thanks for the event.

FROM ENCRYPTION TO TAKE DOWNS:

INTERNET REGULATION UPDATE – June 2021

An incredible event focusing on national and international internet regulation and the effectiveness of current regulatory efforts to protect us against cyber-attacks, unlawful access to data and inappropriate online content.

DIGITAL NETWORKS IN REGIONAL AUSTRALIA –

FIELD OF DREAMS OR HIGHWAY TO HELL – April 2021

An engaging event discussing the ongoing issue of digital connectivity facing regional Australia. Attendees heard about the challenges for Western Australians and initiatives being delivered by the WA Government to provide world-class terrestrial broadband networks to the some of the most remote parts of our country.

TECHNOLOGY OUTLOOK 2021 AND ITS IMPACT

ON THE INTERNET – February 2021

A must-see event focusing on the crucial role of connectivity technology as experts weigh in on new technologies, gadgets and emerging regulation trying to constrain the impact of technology.

LIFE UNDER LOCKDOWN: ROLL YOUR OWN ISP

– November 2020

An educational event that took us on a journey through starting up a low-cost ISP to being a successful service provider. The expert insight on how to build a scalable, reliable ISP from low-cost components.

LIFE UNDER LOCKDOWN: HOW GOOD IS OUR INTERNET

– September 2020

A great event providing an overview of the ACCC's broadband performance monitoring program and their approach to measuring internet performance. There was also a in-depth presentation from SamKnows, the organisation who provides the technology behind the testing program.

AGM Guest Speaker

EVOLVING THE INTERNET THROUGH COVID 19 AND BEYOND

– September 2020

Jari Arkkio from the Internet Architecture Board and Ericsson Research took us on a fascinating journey through the pandemic's impact on global internet trends.

LIFE UNDER LOCKDOWN:

HOW TO STOP HEISTS, HIJACKS AND HOSTAGES – July 2020

A standout event focusing on RPKI deployment. Experts provided steps to take any complication out of deploying RPKI and highlighted when to use it to improve routing decision making and overall reliability.

IAA HAVING IMPACT ON PUBLIC POLICY

Advocacy is at the heart of IAA as an association, and we are proud to represent the interests of our members amidst today's everchanging regulatory environment. In 2021, we expanded our presence in the public policy space by:

- Advocating for the perspectives of our members through submissions,
- Participating in working groups and collaborating with government departments to actively shape future regulation, and
- Hosting member roundtables.

Onboarding Roundtable with NBN Co

We held a member roundtable with NBN Co to discuss onboarding challenges which members reported experiencing. This was very successful as members were able to express their views to NBN Co directly and have reported improvements to their onboarding processes.

Measuring Broadband Australia

Members became eligible to participate in the ACCC's Measuring Broadband Australia (MBA) program. The aim of the MBA is to provide Australian consumers with accurate and independent information about the performance of Internet plans. Traditionally, the MBA has only involved the large telecommunications players who then use this information in their marketing. We are proud that our advocacy has led to the inclusion of smaller ISPs as it ensures greater performance transparency and improves overall competition within the telecommunications sector. It also gives our members the chance to include their customers' network performance experience and technical quality – as verified by the ACCC – in their external communications.

NBN Co – Special Access Undertaking (SAU)

IAA was invited to participate in the ACCC and NBN Co roundtable which instigated the process to develop a revised long-term regulatory framework for the NBN in June. In the roundtable and our following written submissions to the ACCC and NBN Co, we advocated for price and revenue controls which provide certainty to Retail Service Providers (RSPs), reduce barriers to entry within the telecommunications sector and is in the long-term interest of users. Since August, we have been actively participating in working groups unpacking NBN Co's building block model and regulatory framework.

Online Safety Act Codes

IAA has been working alongside other industry associations and the eSafety Office to develop industry codes, as part of the Online Safety Act. The codes will stipulate that industry participants should foster an online environment which is safe, transparent and limits access to harmful content. We have advocated for codes which are simple to understand, flexible and consistent with existing regulatory obligations.

Model Defamation Provisions

IAA responded to Part A of the Model Defamation Provisions Stage 2 Discussion Paper which addresses internet intermediary liability in defamation for the publication of third-party content in May. We argued that basic internet providers, which incorporates internet service providers, should receive statutory immunity from liability in defamation, especially as they do not actively participate in publication of allegedly defamatory content or contribute to risk of harm to reputation. In September, we participated in a series of stakeholder roundtables in which we advocated the points we raised in our submission.

Collaboration

Whenever possible, IAA collaborates with like-minded associations to promote effective internet regulation and the best interests of our industry.

SUBMISSIONS MADE:

Review of Model Defamation Provisions | NSW Department of Communities and Justice

Proposed Non-Discrimination Guidelines | ACCC

SAU Framing Paper | ACCC

NBN SAU Variation 2021 Discussion Paper | NBN Co

Consumer Data Right (CDR) Sectoral Assessment Telecommunications | Commonwealth Treasury

Strengthening Australia's cyber security regulations and incentives | Department of Home Affairs

Statement of Expectations for Telecommunication Industry – Vulnerable Consumers | ACMA


Wholesale ADSL Declaration | ACCC

WORKING GROUPS:

eSafety Industry Codes – Online Safety Act

NBN Co SAU Working Group (Regulatory Framework and BBM Model)

Model Defamation Provisions



FINANCIAL SUMMARY AND OUTLOOK

This year some overdue expenditure on new switching and compute capacity and maintenance was made, having been deferred from previous years. Following this, the incoming CEO led a full budget planning process, and the Board approved a formal, full year budget for FY 20/21. This marks the adoption of improved forecasting and planning. Staffing also increased from 5.7 FTE to 7.8 FTE.

A full billing audit was conducted to improve invoice clarity and accuracy and ensure discount policies were applied consistently and fairly.

Staff and the Board undertook a market review and appointed Perpetual as our external investment manager. This will enable more strategic management of member funds for future projects.

FINANCIAL SUMMARY

	FY20-21	FY19-20
Total Income from member services, grants and other	\$3.66m	\$2.71m
Surplus (deficit) after expenses	\$921,048	\$239,773



FINANCIAL POSITION

	FY20-21	FY19-20
Assets	\$4,317,809	\$2,983,636
Liabilities	\$679,628	\$475,332
Net Asset	\$3,638,181	\$2,508,304

	FY20-21	FY19-20
Reserves	\$208,829	-
Retained surplus	\$3,429,352	\$2,508,304
TOTAL EQUITY	\$3,638,181	\$2,508,304

Note: these numbers should be read in conjunction with the annual financial report as some variations to accounting treatment have been seen between financial years.

CONTACT US

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