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SLIDE: The industry megatrends driving Vocus' investment strategy

Good afternoon everyone, and thank you to Grahame and the CommsDay team for inviting me to speak today.

Vocus is proud to be a Gold sponsor of this year's Wholesale Congress event.

I'm Michael Riad, chief product officer at Vocus, and today I'd like to speak to you about three topics that are shaping our future.

First, I'll provide an update on Vocus' \$1 billion, five-year investment strategy, which is now well underway.

Second, I'll talk you through our API and products strategy.

And finally, I want to talk about a few 'megatrends' that are driving our strategy; including AI, LEOs, and security.

SLIDE: Next chapter: \$1 billion investment strategy

So let me start with an update on our \$1 billion investment strategy.

This strategy is built on 5 key pillars:

- Extending our network's reach,
- Upgrading our network capacity,
- Enhancing our security credentials,
- Capitalising on new technologies, and
- Enriching our digital capability.

These five pillars are central to what we're delivering in the Wholesale market.

So let me start with what we're doing to extend our network's geographic reach.

SLIDE: Extending Our Reach

Just a few months ago we announced that our new 1,000-kilometre submarine cable connecting the Australia Singapore Cable to the North West Cable System had been completed.

This is the final piece of the Darwin-Jakarta-Singapore Cable System, a \$500 million system of high-capacity cables connecting Darwin, Port Hedland, Perth, Christmas Island, Jakarta, and Singapore.

And connected to this submarine system, construction is also underway on Project Horizon, a new 2,000km fibre route from Geraldton to Port Hedland in WA.

This will close the final gap in our terrestrial network, creating a figure-8 of fibre rings across Australia's east and west.

Project Horizon will start with capacity of 38 Terabits per fibre pair.

On top of this, our work to extend our North West Cable System north to Timor Leste is ongoing, and will deliver the first submarine cable to that nation when it is complete.

And finally, planning and design work continues on the East Coast Cable System.

The first phase of this new submarine cable system is being planned between Melbourne and Sydney, complementing our two existing coastal and inland fibre routes.

SLIDE: Upgrading Our Capacity

The second pillar of our investment plan is upgrading our capacity.

We have an excellent fibre asset that is scalable and can be augmented for many years to come.

Across our submarine cable assets, older 40 Gig technology has now been upgraded to offer 100 Gig services for our customers.

Across our terrestrial networks, we quadrupled the total capacity available between 2021 and 2022. And we've continued to accelerate those upgrades throughout 2023 and into 2024.

The first step we took was to add more than 25 times more capacity between Adelaide, Darwin and Brisbane, lifting our offering to customers from 10 Gig services to 100 Gig, with an upgrade path to 400 Gig.

We've been progressively upgrading our regional routes from 10 Gig technology to 100 Gig, including Sydney to Brisbane and Sydney to Melbourne.

And our intercapital routes are seeing an even greater capacity uplift.

Just under a year ago, we announced Australia's first 400 Gig wavelength services were live on our Sydney-Canberra-Melbourne fibre.

In July this year, we announced that 400 Gig services were live on Melbourne to Adelaide.

We are currently working to upgrade Sydney to Brisbane and Adelaide to Perth with this same technology, expected to go live in 2024.

When Project Horizon is complete, we'll have a U-shaped national backbone network offering 400 Gig services from Brisbane all the way to Port Hedland.

The 400Gbps technology offers significant benefits to cloud providers and hyperscalers, enabling them to move and replicate enormous amounts of data between cloud regions and data centres in shorter periods of time.

For customers with very high bandwidth requirements, 400Gbps technology also optimises cost by reducing the number of cross connects at data centres, requiring only one cross connect rather than four when using 100Gbps hardware.

Customers also benefit from reduced power consumption, smaller rack space requirements, and easier management supporting less ports and optics to achieve the desired bandwidth outcomes.

SLIDE: 5 Pillars of Investment

The third pillar of our investment plan is enhancing our security credentials.

Over the past few years, cyber security has become a front-of-mind issue for our customers.

This year we have doubled our investment in security, and we anticipate we will double it again next year as we continue to introduce new technology, software, and highly skilled people.

The fourth pillar of our investment plan is to capitalise on new technologies.

Earlier this year, Vocus acquired Private LTE and 5G specialists Challenge Networks.

Challenge has deployed private mobile networks in some of the most challenging – pardon the pun – areas of Australia and the Pacific.

They've delivered networks across remote mining sites in the Pilbara, including the world's first and largest underground LTE network connecting Gold Fields' Granny Smith mine site.

And they've designed and constructed mobile networks throughout the Indo-Pacific region, including PNG, Vanuatu, Samoa, Tonga, Tuvalu, and Fiji.

Along with Challenge, our reseller agreement with Starlink has gone from strength to strength in 2023.

LEOs are a revolutionary technology and there is clearly pent-up demand for affordable, high-bandwidth connectivity in very remote areas beyond the reach of fibre and commercial mobile networks.

I'll speak a bit more on LEOs later on.

And the fifth and final pillar of our investment plan is enriching our digital capability.

Over the past few years we've rationalised legacy networks, retired products, and decommissioned old systems.

We've built a digitised experience that automates key network functions and gives our customers control over how they use our network.

We've invested in a next generation API platform that is focused on enabling our customers to tailor their digital Sales and Order experiences.

SLIDE: Vocus' Next Generation API Platform

And this final element of our investment strategy is a great segue to my second topic today – Vocus' product and API roadmap, enabling our customers to make the most of all this new network capacity.

We are seeing our customers' requirements for:

- On-demand connectivity,
- digital services with edge computing & comprehensive security,
- Automated & programmable networks, and

- Flexible interconnected partner ecosystems with local, and sometimes global, reach.

And our customers expect us to provide a frictionless digital experience where they are in control, with the ability to adjust services in minutes – not days.

APIs are the "connective tissue" across this ecosystem.

We have actively engaged with the leading industry standards groups to ensure our approach and architecture are fully aligned to best practice.

This has resulted in the next-generation Vocus API Gateway.

Rather than having a number of different API platforms for different products, we have a common set of APIs for all products we will release moving forward.

And being standards-based, our customers no longer need to build bespoke integrations for every supplier.

Our legacy APIs required customers to implement specific rules for each product, down to the coding level, resulting in significant effort to building for a new product.

Now, our products are defined by catalogue specifications that can be read and managed at runtime, significantly driving down the cost to on-board and maintain new products.

We are now fully aligned with industry standards, including standard orchestration patterns, giving customers full control to deliver common front-of-house processes, and persona-based customer experiences.

Rather than having multiple API platforms, each with different protocols and data models, we have a single standards-based and secure API platform.

Early on in our development of a Standards-Based platform, we faced a decision between the two leading bodies: TMF and the Metro Ethernet Forum.

Vocus opted for MEF, and this is where we see significant momentum in the marketplace – particularly for Wholesale and Enterprise markets for Internet and Ethernet connectivity where we specialise.

SLIDE: Wholesale Product Suite

Now I'd like to turn to our product roadmap.

At Vocus, we follow a simple formula: to succeed, we need to develop fit-for-purpose products that help our customers solve business problems and secure new market opportunities.

We are in the business of helping our customers grow their revenues, whilst managing cost and risk.

Last financial year was a pretty exciting period for our Products team, with two first-to-market products in Australia: 400Gig Wavelength and Vocus Satellite Starlink.

These products are selling above our forecasts, solving business challenges, and opening up new opportunities for our customers.

FY24 will be a continuation of these themes.

SLIDE: Product Enhancements

In networks and connectivity, we're focussed on access, organically growing our on-net footprint by doing things like reintroducing near-net pricing, launching new offerings based on third party access capabilities from NBN, and things like Smart Places – whilst pursuing new opportunities in Satellite to maintain our market-leading position.

Starlink has been great, and there is much more on the horizon for our customers.

We have also enhanced and modernised our hosted telephony service to seamlessly integrate with a wide range of enterprise applications, including MS Teams, Genesys, Twilio and Zoom.

Security is top of mind in most conversations today, so we're delivering DDOS detect and protect products.

Vocus Threat Detection System, or TDS, is set up to collect and forward Netflow traffic information for analysis and profiling.

Vocus Threat Prevention System, or TPS, filters and scrubs that traffic helping with threat mitigation placed around the Vocus network.

Vocus is an experienced manager of DDOS services and we operate our own platform, which we'll continue to invest in to counter growing cyber threats.

So that's a quick overview of the work we're doing to enhance our digital capability and invest in our product suite.

SLIDE: MEGATRENDS 1: AI

The third and final topic I'd like to discuss today is the industry megatrends that are driving our network investments: AI, LEOs, and security.

Let's start with Artificial Intelligence.

Increasingly you'll hear Vocus talking about our business as a digital infrastructure operator rather than a telco.

And it's from this perspective that we see AI as a transformative force driving demand for digital infrastructure.

When ChatGPT launched as a public demonstration model in November 2022, it notched up one million users five days.

The entire technology industry rapidly recalibrated to focus their time and investment onto AI.

We're already seeing the integration of AI into the cloud services of the biggest network capacity buyers and datacentre users – like AWS, Google Cloud, Microsoft Azure, and Oracle Cloud.

But we're still only seeing the tip of the iceberg.

As AI applications become more sophisticated, they will inevitably require more data, more processing power, and more network capacity.

Data consumption is forecast to grow from 97 Zetabytes in 2022 to 181 Zetabytes in 2025 – that's 181 trillion Gigabytes.

A compound annual growth rate of 26%.

And we're investing in our fibre infrastructure to ensure we're ready for it.

Over the past four years, our terrestrial long-haul provisioned capacity has increased by 155%.

Our provisioned capacity on our submarine cables has increased by 181%.

The ASC cable from Perth to Singapore now carries more traffic than our major Sydney to Melbourne route did just four years ago.

This capacity will be essential to meet the demand of AI in coming years.

And this is the megatrend that makes Vocus' industry-leading connectivity into Datacentres so important.

It's not just fibre, and it's not just datacentres, but this combination of high-capacity fibre connected to a network of datacentres that will provide the foundation for AI to flourish.

SLIDE: MEGATRENDS 2: LEOs

The second megatrend is the arrival of Low Earth Orbit satellites, or LEOs.

Like AI, LEOs are a revolutionary technology that has changed the way we think about connectivity virtually overnight.

Vocus was fortunate to become the first major Australian telco to resell Starlink's business-grade LEO services, and the market appetite for high-speed data in previously-unreachable locations has been unprecedented.

For the first time in history, metro-comparable data speeds and latencies are available to 100% of the Australian landmass.

The cost of providing a high-speed, low-latency connection in an extremely remote location just dropped from tens of millions of dollars to a few thousand dollars.

So how does it work? A LEO typically sits between 300 to 600km above the earth's surface, compared to traditional GEO satellites which sit around 35,000 kilometres above the earth.

LEOs provide broadband speeds between 50 and 300 megabits per second, depending on the service purchased, compared to average speeds between 5 to 25Mbps on traditional satellites.

Another technological breakthrough offered by LEOs is latency.

Starlink's typical latency on its LEOs is 20 to 40 milliseconds, which is comparable to terrestrial broadband technologies – and a giant leap from the 600 millisecond latencies typically seen on GEO satellites.

The huge increase in the use of cloud services over the past few years has made latency a critical factor for many applications, as these services simply don't work as they're meant to when connected with the high latencies of GEO satellites.

So you're probably wondering why a fibre operator like Vocus is calling LEOs a megatrend, when we don't own any.

The high-speeds and low-latencies of LEOs are dependent on extensive ground infrastructure with high-capacity fibre backhaul, so processing and storage can occur as close to the edge of the network as possible.

This means having ground stations close to where the end-users are located to minimise round-trip time. And those ground stations need to connect to data centres on our fibre.

And we're just beginning to see how ground station technology will develop as LEO networks are deployed.

Vocus is a founding partner and shareholder in Quasar Satellite Technologies, a revolutionary new satellite ground station company based in Australia.

Quasar's technology promises to disrupt the satellite ground station market by delivering "ground stations as a service".

They'll enable this using their electronically-steered phased array technology, which emulates the behaviour of a traditional antenna but no longer requires it to mechanically track satellites across the sky.

Quasar could allow new LEO satellite fleets to launch far more quickly and cost-effectively, as they wouldn't require multiple deployments of ground infrastructure.

And one thing which excites me about our work with Quasar is that it's an Australian company, backed by Australian funding, developing a sovereign Australian capability in the modern-day space race.

And sovereignty is a factor that Vocus increasingly sees as a competitive advantage in a market where security is critical to success.

And this brings me to the third megatrend shaping our industry.

SLIDE: MEGATREND 3: Sovereignty and security

Over the past few years we've seen our networks become viewed by Government – and regulated – as critical infrastructure.

And that infrastructure has to be sovereign and secure to meet the increasing demands of our customers in an era when cyber threats are more pervasive than ever before.

The legal, reputational, and financial risks of cyber security breaches are at an all-time high.

Over the past couple of years we've seen rigorous new demands put on data centre operators to ensure that any Government-held data pertaining to Australian citizens is physically hosted on Australian territory to ensure it remains within Australia's legal jurisdiction.

On Vocus' side, we face regulatory requirements to work with Government agencies when we make changes to our network, and after the well-publicised cyber breaches over the past year we expect these demands will only increase.

But we don't view this as a burden. We see it as an opportunity.

Vocus is Australian, and we're backed by Australian investors in Macquarie Asset Management and Aware Super.

Vocus serves our customers with the highest security requirements on a physically segregated network, with independent hardware and

operating systems to keep secure traffic separate from regular commercial traffic.

That network is operated by security-cleared staff in a secure NOC built in compliance with the most rigorous requirements.

Vocus continues to invest in our Security posture: our ISO Accreditations, uplifting our ASD8 Maturity, NIST, and IRAP.

And we're investing heavily in new security products and partnerships to add value to our customers who need more than just a telecoms service.

It's a privilege for me to sit on the NSW Crimestoppers Cyber Security Committee, where I've been fortunate to gain greater perspective and insights into the growing threats we all confront and the ingenuity displayed by malicious actors.

As with AI and LEOs, the megatrend of security and sovereignty is driving our investment strategy to ensure our infrastructure can deliver well into the future.

SLIDE: Building Critical Connections

So I'll conclude with a brief recap of my three key points today.

First, Vocus is well underway in our billion-dollar investment strategy which will extend our reach, upgrade our capacity, enhance our security credentials, capitalise on new technologies, and enrich our digital capability.

Second, we're rolling out our standards-based APIs and a new product suite to make it easier than ever to work with our Wholesale business.

And finally, the industry megatrends of AI, LEOs, and sovereignty and security are driving our strategy to ensure we continue to deliver into the future.

Thank you.