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Sri Amirthalingam - Chief Network Officer.

“The Next Five Years: Australia’s Communications Moment”

[Opening]

Good morning everyone.

Connectivity is a bit like oxygen. When it’s there, no one notices. When it’s not… suddenly everyone becomes an expert.

And over the next five years, we’re going to take something invisible - and turn it into something foundational.

Not just for convenience… but for how we function as a nation.

That is why this is titled… “The Next Five Years: Australia’s Communications Moment”.

So, I want to examine this challenge through three lenses:

1) **What is coming;**

2) **The choices we must make**; and, if we get this right,

3) **What good looks like.**

[Act 1 — What’s Coming: The Inevitable Shift]

Let me start with what is coming - because this is not speculative, and it is not optional.

6G is on the horizon.

But this is not another “G” in the way we’ve historically thought about it.
It’s not faster video streaming or incremental speed gains.

It is a fundamental shift in what a network is.

We are moving to AI-native networks - networks that don’t just carry traffic, but understand it, predict it, and adapt and heal in real time.

In simple terms:

Today, networks react.

Tomorrow, they will anticipate.

They will know where congestion is likely to occur before it does.

They will prioritise critical services dynamically.

They will self-optimise in ways that today require entire teams and planning cycles.

That will be the first wave of change.

Alongside that, we will see the rise of agent-to-agent communication.

Let me make that real.

Imagine you're heading into a sales meeting; let's assume you're a sales executive selling to a large client.

On your phone sits a personal AI agent - let's call him *Bob*.

Bob knows your calendar, your priorities, your past conversations.

He is everything including your health sentinel and chief of staff.

Before the meeting, *Bob* reaches out to another agent - *Felicity* - who might live at the operator's edge or inside a data centre.

Felicity has access to structured financial context about your client and many others.

Bob then calls *Mary*, another agent, to retrieve the full history of your past interactions.

By the time you walk into that sales meeting - especially with wearables or glasses - you're fully briefed, in real time about your client's financial status, your sales potential and issues you need to address.

What's happening there is not human-to-human traffic.

It is agent-to-agent traffic, at scale.

And just as 4G enabled social media for humans…we are about to create a social and operational network for machines.

That is the second wave of change.

At the same time, networks will begin to sense the world.

The third wave of change.

Communications and sensing are converging.

Your network won't just carry signals - it will detect patterns:

- Rain.
- Movement in remote terrain.
- Early indicators of fire conditions.

And over time, these capabilities allow us to move from reacting to disasters…to anticipating them.

Then there's the integration of terrestrial and non-terrestrial networks.

The fourth wave of change.

Sky and ground will operate as one.

In the next five years, we will see a system emerge that provides a true safety net - voice, messaging, and narrowband data - available almost anywhere across the continent.

Not perfect coverage. But meaningful continuity.

And when you zoom out, the purpose of the network itself changes.

Let's put it all together:

From human in the loop to machines in the group.

From connectivity to coordination and intelligence and cognition.

This unlocks entirely new use cases:

- Environmental sensing at national scale.
- Autonomous systems - drones, logistics, remote operations.
- Real-time visibility of infrastructure.

- Seamless connectivity across land and sky.

But beneath all of this is a deeper challenge:

The complexity of traffic explodes.

The surfaces for security expand.

Questions of sovereignty and control become harder.

And infrastructure stops being just commercial.

It becomes strategic.

And all of this is now coming to our shores. Whether we like it or not.

You'll begin to see it arrive through 5G Advanced, and not long after, through 6G.

And 6G will not be a distant horizon - it will come faster than many expect.

The 2028 Olympics in the US will act as a powerful catalyst, accelerating early deployment and innovation.

And then, by the time we reach the 2032 Olympics here, we will have a unique opportunity - not just to adopt it, but to scale a truly world-class network.

So if we want to be successful, what do we need to do now.

[Act 2 - Friction: The Choices We Must Make]

Now, let's talk about friction.

Because while the technology trajectory is global…
The reality we operate in is uniquely Australian.

Much of the thinking around 6G assumes:

- Dense cities.
- High revenue per user.
- Short-range, high-capacity deployments.

That is not our reality.

Australia is vast.

It is sparsely populated.

It is exposed to fire and flood.

We rely heavily on:

- Remote industries.
- Long-distance logistics.
- Maritime and regional services.

Like Qantas has to innovate to fly non-stop between Sydney and London, we in the mobile industry in Australia have innovate to drag radio signals across Australia.

We must adapt global technology to Australian reality.

And that introduces real choices.

First - spectrum.

We need spectrum that is:

- Available on time
- Affordable enough to innovate

As we look at 6GHz, 600MHz, MSS bands… the question is not just allocation.

It is: can we afford to build what we are being enabled to build?

We need to work as an industry with regulators to enable 6-7GHz availability in Australia for 6G. If you want to lead as a nation.

That is why we in Optus are testing this with vendors and advocating this with the ACMA.

The second friction point is - satellite sovereignty.

Satellites are no longer fringe.

They are becoming critical national infrastructure.

Yet today, much of that infrastructure sits outside Australian control.

The US has Amazon and SpaceX.

The UK has OneWeb.

Canada has Telesat.

We are starting to legislate resilience requirements…but we have not fully answered the question:

What does sovereignty look like in a sky-based network?

Again, with sovereignty also lingers a question of MSS spectrum - another friction point on how that is shared with mobile and satellite operators.

Australia needs to think ahead with Australia's needs in mind.

Third friction point is continuity.

As terrestrial and non-terrestrial networks converge, who owns the customer experience?

The mobile operator?

The satellite provider?

Or does the concept of ownership itself evolve?

The fourth friction point is Standards and Evolution.

We have invested heavily in 5G.

The path to 6G cannot be a wholesale reset.

We should be advocating for:

- Dynamic spectrum sharing to reuse existing assets;
- Low-band support in 6G to suit countries like ours; and,
- An evolutionary model, not a rip-and-replace cycle.

These are not technical debates.

They are national choices.

And they will shape whether we lead… or simply follow.

And fifth friction points is use cases.

We cannot afford to usher in 6G as simply a faster version of 5G.

This is our moment to think bigger - to build an ecosystem of meaningful use cases that don't just benefit Australians, but fundamentally transform how we live, work, and respond as a nation.

One powerful example is in sensing.

Imagine extending network capabilities to sense rainfall in real time, enabling predictive flood intelligence that can be tightly integrated with Public Safety Mobile Broadband.

This is not just innovation for its own sake - it's about materially improving how our emergency services anticipate and respond to crises.

There is already pioneering research underway at UTS, and at Optus we are actively collaborating with both academia and our vendor partners to bring these capabilities to life as part of the 6G journey.

In a country as exposed to natural disasters as Australia, this is where technology moves beyond connectivity - and starts to truly make a difference.

[Act 3 — What Good Looks Like: The Opportunity]

So what does success look like?

If we get this right…

First, we move early and together.

We maintain Australia as technology leader and bring better capabilities and benefits to all Australians.

Industry and government align on direction - not in perfect agreement, but with shared intent.

We reduce fragmented bets, and we increase confidence in long-term investment.

Second, we redefine what the network is.

Not just infrastructure…

But a continuity platform - a service layer that follows Australians wherever they are.

A farmer, a truck driver, an emergency services worker - moving seamlessly across terrestrial and satellite networks without thinking about it.

That sounds simple.

But for a country like ours…it is transformative.

Third, we build the network as a national sensing platform.

One that is integrated with public safety.

In a country shaped by fires and floods, the ability to sense, predict, and respond faster is not just valuable - it is essential.

Fourth, the network becomes an AI coordination layer.

It stops being something that merely carries information…

And becomes something that participates in decision-making.

Helping industries operate more efficiently.

Helping systems respond more intelligently.

Fifth, we design for integration.

A seamless mesh of terrestrial and satellite connectivity that moves us closer to near-continuous coverage.

Not theoretical coverage - practical continuity.

Whether you're travelling along a remote highway, out on a bushwalk, or living in a distant community, you will have the ability to stay connected - for voice, for messaging, or simply to navigate your way.

That level of connectivity becomes more than a convenience; it becomes a vital safety net - one that can save lives and significantly reduce distress in critical moments.

And finally - smart economics.

Sustainable spectrum models.

Viable partnerships between mobile and satellite players.

Investment driven by outcomes - not hype cycles.

If we achieve this, the outcomes for Australia are tangible:

- Faster, more effective disaster response.
- Stronger regional and remote connectivity.
- More productive industries - mining, agriculture, logistics.
- Greater national resilience.
- And clearer technological sovereignty.

Not just a better network…but a stronger country.

[Closing]

So the question before us is not whether change is coming.

It is whether we choose to shape it.

And moments like this demand action.

First - on spectrum.

We need to ensure spectrum pricing is fit for purpose - affordable enough to unlock investment, not constrain it.

And as we look toward 6G and satellite, new spectrum must be made available with the right policy instruments and at the right price - so we can advance Australian interests, not limit them.

Second - on sovereignty.

Satellite is now critical infrastructure.

Australia - government and industry - must come together to define what sovereignty looks like in a space-based network.

And importantly, we must find a way to cooperate on UOMO - so we are building capability here, not just consuming it.

Third - on standards and technology direction.

We cannot simply inherit a 6G that was designed for other markets.

We must actively push 3GPP and our vendor partners to shape 6G for Australia:

- with low-band spectrum support;
- with wide-area coverage in mind; and,
- with use cases that reflect our geography, our industries, and our realities.

Because if we don't shape these outcomes, we will inherit them.

And that is the choice in front of us.

Do we follow the world…or do we help define it?

If we act - together, decisively, and with intent - this will not just be the next generation of connectivity.

It will be a step change in Australia's capability, resilience, and future.

Thank you.

<ends>